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The CPRS's Trojan horse

Four weeks ago we commented on the still draft report of the Labour Party's working group on post-18 education. Although critical of its emphasis and of some of its preoccupations, our broad conclusion was favourable. "The Labour Party is the only political party which is still firmly committed to the expansion of the social base of higher education. The SDP is stuck with liberal tinkering while the Conservatives are engaged in rolling back a generation of progress." This provoked one reader into suggesting in the letter that *The THES* was not "a Higher Education Supplement" but "a Socialist Education Supplement".

A few weeks earlier in a similar comment on the Social Democratic Party's first draft at a higher education policy our conclusion was "the SDP offers reasonable policies based on liberal beliefs in a world unreasonably suspicious of such cultivated liberalism" and we went on to suggest that the SDP did not sufficiently recognize the need to fight fire with fire. That too was criticized, although more politely and privately, as an unfair and exaggerated conclusion.

What both reactions demonstrate is how few people in universities, polytechnics and colleges realize what they are up against. The long-term and deeply felt intentions of the Conservative Party towards higher education are radical and reactionary, with both adjectives used in their precise rather than rhetorical sense. It is quite misleading to imagine that Conservative policy towards universities and other institutions is one of public expenditure cuts in which ideological considerations take a back seat. Such is the case of the more potentially demanding general beliefs of the present Government that there is no hope of their being achieved without repudiating the values and principles of our present system of higher education.

It may be accurate to describe the policy of the Department of Education and Science as one of trying to do the very least to satisfy the Treasury in terms of cutting public expenditure while keeping a low profile in Whitehall, a policy in which Sir Keith Joseph's maverick lapses into "geology" (harassing the Social Science Research Council, sniping at the Open University) are almost balanced by Mr Waldegrave's liberal "corrections" (the formation of the National Advisory Body, the restructuring of universities). But this does not begin to describe the real balance of intentions within the

reigning elements in the Conservative Party and the Government. These intentions are plainly revealed in the paper from the Central Policy Review Staff (the Think Tank) on social policy which had been circulated with other Cabinet papers on September 7 but had so distressed the still powerful Cabinet "wets" that they managed to keep it off the agenda of the meeting on September 9 - and leaked it to *The Economist* instead. The CPRS, it has to be emphasized, is not a fringe policy institute but an increasingly powerful institution within Whitehall. Indeed the Conservatives are beginning to succeed where Labour failed in making the CPRS a Trojan horse that can be used to trundle their prejudices right into the heart of Government. So no CPRS paper, however secret and however long-term, can be safely ignored.

This paper suggests that state funding should be ended for all higher education. Fees would be set at "market" rates, currently at least £4,000 a year. All institutions would be "privatized" in some contorted sense, so the familiar contours of the binary policy would disappear (turning the clock back to 1962) and the University Grants Committee would also lose its purpose (back to 1919). Students grants would be abolished, to be replaced by 300,000 state scholarships (presumably chosen by national competition along the lines of Oxbridge entrance) with loans for the unlucky rich.

It is exceedingly difficult to discuss sensibly policies which appear to be based on the slogan-belt "private market - good, public service - bad". In any case the authors of such policies are unlikely to be moved by considerations of social justice or, one suspects, intellectual freedom both of which would be gravely undermined by the wholesale privatization of higher education. Far from being unfortunate side effects the shrinking of the social base of higher education and the undermining of the financial independence of institutions, undertaken by the UGC, on which academic freedom depends may be the objects of the exercise in the eyes of a secret and powerful few. However they should perhaps consider whether these policies are likely to achieve their formal objectives, presumably a depoliticization of higher education priorities/enlargement of "private choice", and a substantial reduction of public expenditure on higher education. They should be reminded that markets distribute rather than create resources, and not very efficiently in the case of

Laurie Taylor



Right, gentlemen. Item six on the agenda: New Blood. Now, as you will recall, we agreed at our last meeting to have a look through the ACs - that's the Age Compositions - of major university departments, to see if we can find any grounds for injecting some fresh blood in the form of new appointments. May we follow our usual procedures for selecting the first such university for consideration? Good.

Excuse me, chairman. Just a small point. But I wonder if before we make our selection it might be an idea to give the hat a jolly good shake? I mean we haven't actually used it since the last round of cuts.

Quite right, Trevor. Jolly good shake. THERE. That should do it. And out comes... my word this one's tightly wrapped... yes, number 15. Over to you, secretary.

Number 15, sir, is... the University of... Sarum.

Good. And now let's choose the specific department. One right from the bottom of the hat. Pink ticket. And it's number 11. LEGS. ELEVEN, as I believe they say.

Excuse the Department of Minor Ecclesiastical Controversies.

Fine. And not may we have the AC for that department.

Yes, sir. The number of academics in the actual department is 26.

Right. And the average age? That's 63, sir.

Jolly good. And the median... I hope you'll agree, gentlemen, that this is a useful additional measure.

One second, sir. Yes, that's just... 63.

Right you are. And then, for complete statistical reliability, the mode.

That's exactly 63, sir.

Excellent. So according to my jottings, that suggests that everybody in the department is... 63.

Yes, sir.

Splendid. And now the SDQ - Serious Disability Quotient - which, of course, as you'll remember, gentlemen, is based on a careful medical assessment of each individual's ability to see, hear, and produce a relatively coherent sentence.

That's just 30 per cent, sir. Although the figures are slightly skewed by the fact that four members of the department seem to have disappeared and were not therefore available for inclusion in the survey.

First rate. And now we simply place these figures on the matrix and... yes, it's quite clear that comparatively speaking, this department falls into the "Fairly Youthful" category. So, no new blood there.

Sir, I wonder if I might just pop in a word.

Of course, Roger.

Well sir, it's just that I did visit Sarum recently - splendid dinner, incidentally - and had a chance to talk to members of this department. And I must say that I was very favourably impressed by the general evidence of premature senility. Most of them really were well over the hill.

Thank you, Roger. So helpful to have that sort of personal touch. So shall we agree on ONE new member. Good. And, secretary, perhaps you'd mark the whole university down as a designated growth area. Good dinners aren't two-a-penny these days.

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'New blood' may be paid for out of UGC capital funds

by Ngalo Cresquer
Young academics may be recruited with money diverted from the universities' capital funds.

Both Sir Keith Joseph, the education secretary, and Mr William Waldegrave, his junior minister, are taking seriously the problem of the lack of "new blood" in the universities. They are discussing the size of the next education budget with the Treasury, and studying University Grants Committee's proposals for a fellowship scheme for new academics, and a similar paper presented by the Advisory Board for the Research Councils.

In the initial expenditure review ministers looked at the capital funds. However the building programme fund only amounts to £10m and much of this is for projects which have already begun, as well as for energy-saving programmes.

The only substantial new programmes are likely to be at Aston, Salford and Bradford which need to change their physical requirements

because of the cuts. The other fund is the £70m equipment and furniture grant which the UGC has only just got restored to near its former value.

At the UGC meeting last week members discussed the effects of the university cuts and a paper drawn up by officers in response to Sir Keith's request for a progress report on restructuring.

The paper, which was written for publication, was criticized by some members because it did not spell out some of the damage caused by the cuts, nor name those universities which were suffering badly. It will now be revised.

The UGC has already asked universities for their latest estimate of the number of people applying for redundancy and has now decided to ask for the admission figures for October 1982, to be able to give Sir Keith a fuller picture before Christmas.

Next week the committee will start to look at claims made by the universities for money for new developments. The sub-committees have graded the claims and between six and twelve have been classified grade one, for first consideration.

Vice chancellors, who also held their annual meeting last week at Cardiff, were stung by a vigorous call for the universities to move away from dependence on the UGC made by Strathclyde principal Dr Graham Hills.

He caused a stir by calling for greater financial independence for the universities, deriving their income from a system of economic fees, and support for vouchers for students to be included at the university accepting them. The value of the coupons should come, he said, from whatever cash limits the Government put on higher education in that year.

Some vice chancellors remained sceptical of the proposal to break with the UGC. One said it would be crazy to attempt any dismantling of the UGC in the present uncertain climate.

MSC 'Retrain on HP' plan for jobless

by Karen Gold and Patricia Santinelli
The Manpower Services Commission is examining repayable loans as one way of financing unemployed adults on retraining and other related courses.

Proposals being put before the commission later this month include an experimental pilot programme for loans to complement existing financial support for retraining adults including the unemployed.

The draft report of a working party set up by the training services division of the MSC comes when loans for full-time students in higher education are firmly on ministers' agendas with the full backing of the Central Policy Review Staff.

Another document from the employment services division of the commission suggests an alternative cash voucher system which could be used as a personal job introduction subsidy or to purchase a training place.

This non-repayable voucher would be available at a higher rate depending on the difficulties of unemployed adult trainees. It would be comprehensive open to abuse unless used specifically to enable entry to training courses, the division said.

No price or term for the loans scheme has been suggested so far by the working party, which was set up to look at the adult education and training section of the Government's new training initiative, and comprises only civil servants with observers from Government departments.

But it outlines a programme to pilot loans for an experimental phase out grants altogether.

The draft puts forward no plans to consult interested bodies before introducing the pilot scheme; an omission likely to infuriate unemployed people, unions and training

Outsider for AUT top job

by David Jobbins
Tactical voting to prevent a Communist from winning the top job in the university lecturers' union may have led to the appointment of an outsider and a row is threatened before the appointment is confirmed later this year.

The executive of the 34,000 member Association of University Teachers has backed Ms Diana Warwick, one of two outside candidates for the £25,000 a year job which falls vacant when the general secretary, Mr Laurie Sapper, retires next April.

Ms Warwick, (37) currently assistant secretary to the Civil and Public Services Association, describes herself as "middle of the road" Labour. She topped the poll in the first ballot after a 90-minute interview. She has been responsible for CPSA members working in the Department of Health and Social Security.

Non CP left wingers on the executive are said to have calculated that the only way to prevent Dr Andrew Taylor, one of two powerful inside candidates, from getting the job was to unite with the right behind Ms Warwick. This destroyed the hopes of the union's deputy general secretary, Mr John Akker, a Labour moderate with the overwhelming support of the AUT's headquarters staff.

The other outside candidate, Mr Peter Smith, deputy general secretary of the British Airline Pilots' Association was eliminated early on.

There was widespread surprise at the appointment. Most people had expected one of the inside candidates to be successful.

comment. Lord Houghton, one of the trustees, said he had not heard any news for several months. Letters had been sent to industrialists and other bodies appealing for funds, but he said there was little response so far. The aim of the institute is to open up debate on industrial relations and avoid alignment with either trade unions or employers.

SSRC bias inquiry begins

by Paul Flather
An unprecedented inquiry into academic bias at the Social Science Research Council's industrial relations unit at Warwick University opened quietly this week.

A preliminary informal meeting was held this week between Professor William Brown, head of the Warwick unit, and Sir Kenneth Berrill, a former University Grants Committee chairman, who is heading the inquiry on behalf of the SSRC.

It is understood the meeting set the agenda for the inquiry, and pinpointed the charges against the unit. Set up by the SSRC in 1970 under Professor Hugh Clegg it has been called "one of the jewels in the crown". It will receive £262,000 in 1982/83.

The charges were levelled by Lord Beloff, a Conservative peer and former professor of government and politics at Oxford University. He submitted evidence to the Rothschild unit of the SSRC, saying the Warwick unit was unfairly biased in favour of trade unions.

Among the specific charges the inquiry will have to deal with are that the unit has concentrated on Conservative trade union legislation and not Labour, and that it has not done enough international work.

Meanwhile the plans to set up a new Institute of Labour Affairs, modelled on the Royal Institute of Public Administration, appear to have run into trouble because of lack of funds.

Lord Beloff said a new institute of Labour Affairs was being set up to counteract the dissatisfaction with the pro-TUC bias of the unit. The new group is led by Sir Leonard Neill, an industrial relations consultant and a former part-time professor at the University of Manchester Institute of Science and Technology.

Sir Leonard was not available for comment. Lord Houghton, one of the trustees, said he had not heard any news for several months. Letters had been sent to industrialists and other bodies appealing for funds, but he said there was little response so far. The aim of the institute is to open up debate on industrial relations and avoid alignment with either trade unions or employers.



Freezing is a threat to more than just academic posts at St Andrews University. The university must lose a rare collection of tropical plants which can no longer hank at 65 degrees Fahrenheit now that temperatures in the botanic garden have been reduced as part of the university cuts in expenditure.

The 10 species of plants, which range in height from one foot to 15 feet, belong to an already threatened species.



Diana Warwick: outsider

Engineers want closer ties with industry

by Jon Turney
The council intends to assess engineering degrees in universities and polytechnics and is holding discussions with the University Grants Committee and the National Advisory Body to see how this can be done.

It is concerned at the loss of training places in industry, and will consider setting up an Industrial Central Council on Admissions to help develop more sandwich courses.

And it stresses the importance of continuing education throughout an engineer's career to maintain awareness of new technology. The Government should not require this to be self-financing, the statement says, but should see it as a national investment in an important educational resource.

The council will pay special attention to training for technician engineers and engineering technicians.

In the short term, the council suggests that it should take over the registration of chartered engineers from the Council of Engineering Institutions by next February. But this now appears unlikely.

where the Open Tech will play an important role in continuing education.

The council statement stresses that the overall objective of improving the efficiency and competitiveness of British industry and commerce can be realized only in the long term. It says the country is the long term. It says the country is the long term. It says the country is the long term.

News in brief

Plea for youth integration

Youth training, further education and school examinations should all be integrated, a conference at Dundee University was told last week.

Drinks all round

A training scheme set up by Whitebread and the Manpower Services Commission to help unemployed teenagers find work has been so successful that from this month it is being expanded to Portsmouth, Sheffield, Cardiff and the Wirral.

Study in oils

A £70,000 two year grant has been awarded to Dr Derek Gardiner at Newcastle Polytechnic by the Science and Engineering Research Council to study the more efficient use of artificial oils.

Medical motives

The tenth annual conference of the Association for Medical Education in Europe was held in Cambridge last week on the theme of 'motivation in medical education'.

Self-help goal

The education system faces a challenge to help individuals develop confidence and acquire skills so they can carve out their own careers instead of relying on others, according to a Bradford University booklet published this week.

Media man

Mr Alastair Hetherington, editor of The Guardian for 20 years and a former controller of BBC Scotland, is to be research professor in media studies at Stirling University.

Research register

With relations between local and central government under review at the Department of the Environment, the Social Science Research Council has produced a timely register of research in the area.

Sunderland taps new source

Sunderland Polytechnic is making a controversial attempt to tap sources of private money from industry and commerce. Its new external development unit will encourage and coordinate outside organizations wanting to use the polytechnic's professional, technical and scientific skills and facilities.

Storm grows over use of union funds

Student leaders at Bradford University said this week they would welcome a Government inquiry into allegations that public money has been illegally spent on transporting students to political demonstrations. The allegations come from the Federation of Conservative Students, which sent a dossier detailing 29 instances of what it believes are ultra vires payments.

The FCS says the payments covered transport for students to events such as CND demonstrations and anti National Front marches. But the Bradford union said: "Our predecessors have allocated funds in a democratic manner and to the best of their ability have acted within the law and in accordance with our charitable status."

He wants all payments to the Bradford union to be suspended pending an inquiry. Union president Mr Simon Ward said the issue was not party-political. He said a large proportion of the money spent on coaches was not from taxpayers but from contributions by individual students and from commercial activities of the union.

If the union was to break the law Mr Ward said, he was sure that the university, which holds the purse strings, would have taken some action. "The university has never been fully tested in the courts and the new union financing arrangements make such a test less likely."

Mr Monteith commented: "This backs up our case for voluntary student union membership. It is not practical for students to attend every general meeting to oppose such payments."

Ombudsman may look at complaints

The Association of Polytechnic Teachers has persuaded the local government ombudsman to set aside her reluctance to investigate complaints about the advice two London polytechnics were given by former senior Inner London Education Authority officials. The initial response from the Commissioner for Local Administration, Baroness Serota, was that the APT's allegations of maladministration arising from a long-running recognition issue fell outside her terms of reference.

Genetics group to carry on

Genetics group to carry on. The work of the Genetic Manipulation Advisory Group will continue, it was confirmed last week, just before publication of the group's third report. The assurance came from Mr William Shelton, under-secretary of state for education during a meeting with members of parliament from the Association of Scientific, Technical and Managerial Staffs parliamentary group.

Storm grows over use of union funds



Strings attached - the internationally renowned Medici String Quartet, has been appointed string quartet in residence at Lancaster University. Members are (left to right) Anthony Lewis (cello), David Matthews, Paul Robertson (violin) and Paul Silverthorne (viola).

UGC may pay legal costs

The university was also obliged to pay Mrs Dick more than £11,000 compensation, the maximum award in the case. The tribunal's written judgment made it clear that this award was made because the refusal to reinstate was deliberate sex discrimination. Dundee made a number of part-time staff redundant in anticipation of the UGC letter in July 1981, but the tribunal was told that the majority of them were men who had full-time jobs outside the university.

The UGC said several months ago that it would consider contributing to damages and costs arising from court proceedings in connection with redundancies. However, it is known that the committee is split over making any award to Dundee, since the tribunal ordered Mrs Dick to be reinstated and the university refused.

Neither the UGC nor Dundee will reveal how much the legal fees were, but they are thought to be somewhere between £1,000 and £3,000.

Students protest about various issues, but it is unusual for them to protest about a new pub. It is even more unusual for them to protest about a pub their university wants to build for them.

Strathclyde University's Students' Association is unhappy about the university's plan to renovate from city centre tenements. "The university has no walls and no boundaries, and it has always made it facilities available to the general public as far as possible," he said.

Student president Mr David Smith said that since the pub would be open to anyone, there were fears that people outside the university might cause trouble. "Students aren't likely to smash things up because they know there would be repercussions and they might even be thrown out of university. But other people aren't going to bother about that," he said.

Maritime Institute goes private

Maritime Institute goes private. The National Maritime Institute is to be transferred to the private sector. This has gone ahead without the 300 civil service employees agreeing to be seconded to the newly formed NMI Ltd. Mr Patrick Jenkin, Secretary of State for Industry, said at the launch of the company that the transfer decision was taken when an investigation by industrial consultants produced an encouraging report on NMI's prospects as a commercial organization.

The UGC fails to be converted

The UGC fails to be converted. The universities applied to the UGC for permission to increase their quotas of United Kingdom students altogether by about 100 students a year so that they could run these courses without reducing their ordinary intake. But last week the UGC decided that it could not support the courses, because it did not wish to encourage work at below degree level in universities and because it felt science courses were already sufficiently over-subscribed.

Labour's 18-plus plan 'doesn't go far enough'

Labour's 18-plus plan 'doesn't go far enough'. The Labour Party's latest proposals on higher education will bolster its existing pyramid structure instead of dismantling it as it should, the chairman of the Campaign for Higher Education told a conference fringe meeting in Blackpool this week. Offering all adults a year of education as a citizen right, as advocated in the document Education After 18 expansion will not create the comprehensive system of further education the party should be pursuing.

Mr Michael Rustin said: "The problem with the proposals we have now is with the proposals another tertiary system, another tier of one-year programmes without affecting structures of existing colleges," he said.

Mr Phillip Whitehead, MP the chairman of the committee which produced the document, said that its 'stick and carrot' approach would encourage institutions to change their structures in favour of serving the local community.

"Many traditional institutions, universities, polytechnics and colleges, will be unwilling to change in the way we want," he said. "The stick now envisaged is planning at local level for all levels of comprehensive education."

Hive-off proposals 'more tank than think'

Hive-off proposals 'more tank than think'. Further attacks on the Central Policy Review Staff paper proposing the privatization of higher education were mounted this week, with accusations that the document is "barbaric" and more "tank than think". The paper was not discussed by the Cabinet after a threatened revolt by "weeds" but Labour MP Mr Christopher Price has confirmed that he wants to summon civil servants from the Think Tank to answer questions from the Commons Select Committee on Education, which he chairs.

NAB urged to set up rescue fund

NAB urged to set up rescue fund. A £10m emergency rescue fund should be set up by the board of the National Advisory Body on Local Authority Higher Education. The recommendation for a small reserve fund came from the joint technical group. The money would be withheld from the initial distribution of the 1983/4 allocations to form a fund from which small payments could be made. It is envisaged that the fund could be used when institutions find themselves with a shortfall. For example if an institution had made errors in calculations which would effect the amount of its pool allocations.

Teacher cuts in four main subjects

Teacher cuts in four main subjects. The number of postgraduates trained as teachers in four main subjects will decrease dramatically by 1985 if the Government's proposed cuts are put into effect. The most affected will be history, English, languages and sciences, with the only visible increase being in mathematics. On Department of Education and Science figures, the number of historians trained through the PGCE would decrease in the universities from 500 to 270 and in the public sector from 300 to 80, thus reducing the number of historians trained by 540.

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Mr Price, backed by his Labour colleagues on the all-party committee, also wants to press the Government to reveal more of the leaked document, which proposes the end to all direct funding of universities, polytechnics and colleges, and the charging of full-cost fees of at least £4,000 a year to all students, with 300,000 means-tested scholarships available for the brightest candidates.

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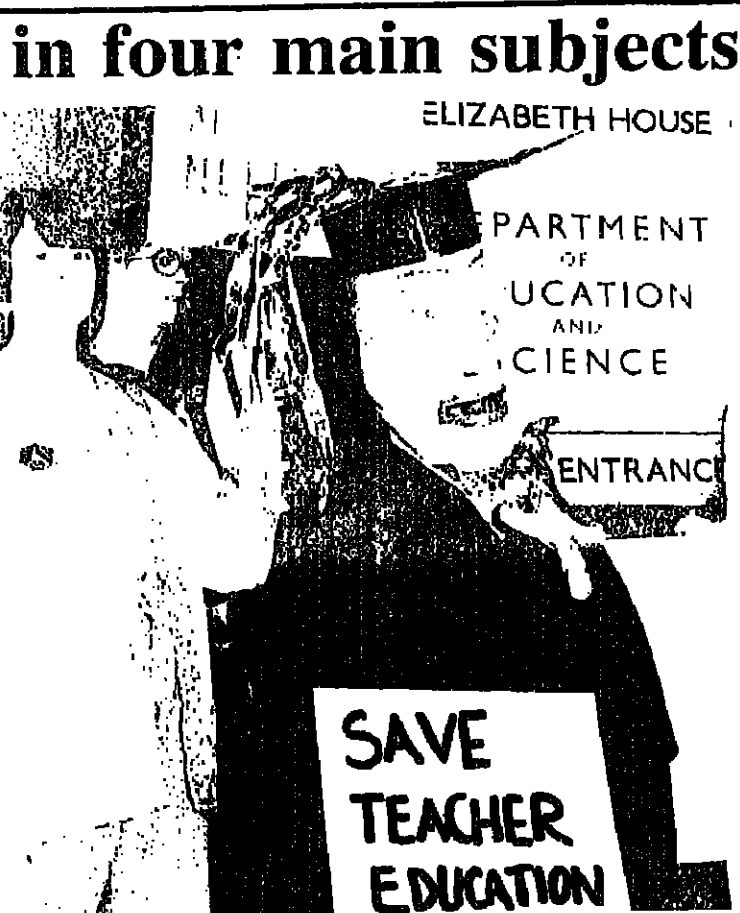
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This protest over the teacher training cuts was staged by staff and students at North East London Polytechnic this week.

He warned that the decision to cease intake after this term at a number of institutions would make compulsory redundancy inevitable. In a surprise move, Manchester City Council's education committee this week decided to recommend the total merger of Manchester College of Higher Education with the polytechnic. Original DES plans were for the merger only of teacher education. Initial reaction at the polytechnic was one of astonishment.

CNAA angers working party on its future

CNAA angers working party on its future. The Council for National Academic Awards' working party which is examining whether some colleges and polytechnics should award their own degrees came close to disbanding this week. This threat arose at the first meeting of the CNAA's working party on longer term developments since the council decided in July to refer back the working party's report on the role of the CNAA and possible models for greater independence.

Then the CNAA's chief officer Dr Edwin Kerr said the council's refusal to accept the report was not unexpected. It was not surprising that certain matters had to be referred back following the first submission, he added.

But the council's rejection of the report, which included an accreditation model giving colleges freedom to award their own degrees, angered some members of the working party which came close this week to disbanding.

The council's decision to refer back was seen as a rebuff after the working party had carried out substantial research into possible alternative relationships between the CNAA and colleges.

Another factor weighing against the exercise is the part, as yet unknown, that the National Advisory Body will play in course approval. The working party had been asked to identify the CNAA's most valuable features. When the council considered its report however it thought some of the models for greater institutional independence did not sufficiently reflect its value as an independent and impartial body for setting academic standards.

Three main long-term models for the CNAA were considered: the integrated model for joint council and internal validation of courses; the licensing model to allow colleges to approve courses but allow the CNAA to keep its powers to grant awards; and the accreditation model which would empower colleges to award their own degrees.

Scottish shake-up planned by Labour

by Olga Wojtas
Scottish Correspondent

The eight Scottish universities could come under the control of a devolved assembly if Labour is returned to power at the next election. A briefing paper which will go to the Labour Party's Scottish conference later this month, and which was presented at a joint seminar of Labour's Scottish executive, the Scottish Parliamentary Labour group and the general council of the Scottish TUC, reaffirms that responsibility for the universities should lie with an elected assembly.

An assembly controlling Scottish education "will result in education assuming a high priority in the public eye in the future. This is the emphasis and importance which has traditionally been placed upon education within Scotland," says the paper.

The method of university funding must be reconsidered, it says, since the University Grants Committee has been criticized for its apparent role as executor of government cuts.

All areas of education will need increased expenditure, but some "will require particular attention because of the appalling neglect to which they have been subjected. The examples given in the paper are adult and continuing education, education for 16 to 19-year-olds, and pre-school provision.

In August, there were more than 34,000 unemployed Scottish school-leavers, with 27,000 on the Youth Opportunities Programme and thousands more on the Young Workers' Scheme, it says.

Bursaries and maintenance grants should be available to all young people over 16 giving them a genuine opportunity to remain in full-time education.

Universities and other institutions should be encouraged to provide part-time degree and non-qualifying courses, with a system of credit transfers between institutions.

The paper condemns the proposal by the Scottish Council for Tertiary Education that three major further education colleges should change from local authority control to central control.

But it does not give direct support to the minority report of the tertiary council which said that all tertiary education should be run by local authorities. Instead it comments that "within the responsibility of the Scottish Assembly there should be as much local autonomy as possible".

The paper endorses education in Gaelic: this should be "an absolute right" in Gaelic-speaking areas, and local authorities should be obliged to provide it in other areas where "a substantial majority of parents" wish it.

In past years education was looked on by governments as the instrument through which the Gaelic language would effectively be destroyed. It can now be used as the main tool for insuring its survival," says the paper.

Paul Flather reports from last week's Leverhulme research conference

Physics warning over 'new blood'

There will be almost no physics lecturers under the age of 40 in universities by 1987 if the problem of "new blood" is not tackled immediately. Sir John Ginn told a conference on postgraduate research last week.

Sir John, professor of natural philosophy at Glasgow University and a former member of the University Grants Committee, said the problem was the deepest rooted ill of the present time.

He was presenting a wide-ranging commentary on the official Morrison report on the support of scientific research at a one-day conference on policies for research and postgraduate numbers at the Royal Society in London, held as part of the Leverhulme inquiry into the future of higher education.

Sir John fielded some stiff questions on the validity of setting up research committees in all universities as recommended in the Morrison report, which he helped to produce.

The Morrison committee was accused seriously of having "passed the buck" on university research by making a recommendation with no guidelines, and of ignoring the long experience of research committees already at work in the public sector.

Sir John revealed that at one stage the Morrison working party had considered whether research should be withdrawn from certain universities, or from certain subject areas in certain universities, to extend its control over the dual support system which was under strain.

It had also considered ear-marking funds for certain areas of research, as recently done in biotechnology and microprocessor education. In the end it decided to urge universities to devise their own research policies by setting up special committees.

The role of the research committees is to make the central process of universities conscious of the needs of research. They are not to tell the physics department for example what physics research it should do," Sir John said. "I hope we have not set up a new hate object."

Sir John said he was heartened that the UGC and the Advisory Board for the Research Councils were trying to tackle the problem of new blood.

"In physics we probably need about 20 to 30 new appointments each year to help us deal with the post-Robbins bulge in the 40s age range. No army would operate with the population structure we have in universities," he said.

Sir John also discussed the overall effect of the cuts on university research, which he estimates will amount to between £30m and £50m, and the enormous drop in money spent on equipment maintenance, traced in the Morrison report.

'Let the SSRC get on with its job'

The Social Science Research Council has largely fulfilled the task set for it in 1965 and should now be allowed to continue its job as a "broker" regulating the social science research market, the conference was told.

Dr Edmund Lisle, a director of research at the Centre National de la Recherche Scientifique, the official French research centre in Paris, defended the SSRC.

He said the SSRC had occupied a central position over the years, almost like a merchant banker, funding and underwriting research projects.

"In the wake of the Rothschild report, the Government should recognize this and allow the SSRC to fulfil its obligations laid out by the Heyworth committee as a regulator of the system." The SSRC was set up in 1965 after the Heyworth Committee report.

He described the research system as a market dealing with a very scarce commodity - knowledge. The demand side was very fluid depending on current research needs, the supply side was very "sticky" because the only input - trained researchers - took a long time to produce.

The job of the SSRC was to regulate this market. It had a vital role because of its proximity to government, its multiple connexions in the academic world and its experience in research and training.



Nottingham Polytechnic students are sleeping on classroom floors again during its annual accommodation crisis at the beginning of the academic year - "only the tip of the iceberg" according to the National Union of Students.

Students threatened by housing crisis

Lack of suitable student housing may hasten the decline of higher education in Britain, the National Union of Students warned this week.

The union says in a new report: "Unless urgent action is taken students will be squeezed, priced and harassed out of the housing market, restricting educational opportunities and reducing students' contribution to society."

Government plans to cut student numbers in higher education - which NUS opposes - will not ease the crisis facing students over the coming years, NUS believes.

The Government intends to cut home student numbers at universities and colleges in England from 350,000 in 1981-82 to 420,000 by 1984-85. But NUS points out this fails to take account of overseas students, and those in Northern Ireland, and at public sector colleges in Scotland and Wales.

"It is clear there will be over 500,000 students in full time higher education in the UK requiring housing by 1984-85. Moreover the cuts planned... will be more than offset by the increase in the number of non-advanced students requiring housing," it says.

Large numbers of students seeking accommodation and the pressure on halls of residence and the declining private rented sector creates more than a temporary start of term crisis, NUS says.

"Many students are forced into housing which is unsuitable and which seriously affects their academic welfare. Many people are deterred from becoming students at all."

The publication of the report marks the start of a major new campaign by NUS to improve housing opportunities not only for students but for other young, single homeless people.

It calls for a drastic change in the attitude of local authorities to students. NUS alleges that too often they regard them as "a mere nuisance for whom the minimum level of service is sufficient".

Local authorities should do more to make hard-to-let housing available to students, and make better use of their short life and empty stock. There are an estimated 135,000 furnished properties in Britain. More furnished accommodation should be made available and the sale of council houses halted, it says.

NUS recommends that halls of residence, which house one third of students, should not be significantly expanded. Where new halls are built it recommends they should offer self-catering accommodation and existing ones should be converted.

It urges positive discrimination in favour of students with disabilities or with children.

The NUS president, Mr Neil Stewart, said local authority leaders could expect approaches from student unions over coming months.

But he cautioned students against accepting properties which were uninhabitable, and emphasized the need to avoid creating "student ghettos" in hard-to-let areas.

The NUS claims students spend about a quarter of their income on rent more than any other social group. Households in the bottom fifth of the income table pay 21 per cent and one adult household 20 per cent.

"Students living in halls of residence are being squeezed between low grant increases and institutions which are under strong financial pressure to increase their rents," the report says. Mr Stewart said: "Student accommodation is not an educational problem - it is a housing one."

A copy of the report was sent this week to housing minister Mr John Stanley.

The postgraduate contribution

Postgraduate research students contribute between a quarter and a third of the total output of scientific research in universities.

Professor David Smith, professor of agricultural sciences at Oxford University, has made two separate attempts to quantify the contribution of research students to new knowledge.

Category	Number	Conversion Factor	Equivalent research Value
Academics with research grants	3,200	70	1,280
SSRC research fellows	133	100	133
Postgraduate research assistants	1,215	100	1,215
Graduate research assistants	2,980	50	1,490
Research students	6,178	30	2,058
Total	13,686		6,167

Research students contribute about one third of total equivalent research value.
Source: Professor D. C. Smith.

Professor Smith told the Leverhulme conference that most working parties investigating post-graduate education in recent years, including the April Swinerton-Dyer report, tended to duck the issue even if asked to consider the "contribution" of research students.

He produced his estimates by following two different methods. First he analysed the research output of one group, in this case his own field of symbiosis. Second he analysed the population structure of scientists engaged in research.

Professor Smith found that over a period of 17 years there had been a total output of 85 papers in the field of symbiosis, 27 written by or with a significant contribution by research students. From inquiry and his own experience he estimated students contribute on average 75 per cent of the work on papers.

From the first method Professor Smith estimated that research students contributed about 35 per cent towards the total output of papers.

From the second method he estimated a student contribution of about one third to the total research. This was based on the assumption that Science and Engineering Research Council research fellows and postdoctoral research fellows spent all their time on research work, while graduate research students were worth half as much and research students about a third as much.

"One assumes that graduate assistants who need a bit of training count for about half the worth of a research fellow, and research students who have to spend some time writing their thesis and thrashing around ideas, are worth about a third," he said.

Finally, by adding the contribution made by academics who spent about 40 per cent of their time on research and the rest on teaching, Professor Smith arrived at his estimated research student contribution of about one third.

The calculations remain crude, however, and take no account of the quality of the contributions from research students, the costs involved, or the aims of individual students. According to the Morrison report university research costs about £600m a year of which postgraduate students account for £15m directly and perhaps another £35m indirectly. For the contribution this is very cheap, Professor Smith said.

"The point of all this is that research students clearly first make a very significant contribution, and second the costs involved are relatively low," he said.

New awards may be made after all

Labour councillors in Bedfordshire will try to reinstate new discretionary awards at a meeting of the full council this month after discovering that about £200,000 of the 1981/82 budget remains unspent.

The existence of the sum emerged last week in a review of expenditure by the policy and resources committee. With interest it is worth about £1m.

The Conservative controlled council recently proposed to abandon new discretionary awards for 1982/83. This would save some £250,000 and help to keep the rates in the county down.

In August the chief education officer of the council was deluged with complaints from colleges, parents and schools arguing that 500 youngsters stood to lose places in further education unless they could pay their own fees.

However until now, in spite of the pledge of Mr Ian Dixon, deputy leader of the council, to try to find a solution for the plight of the most

affected young people, no action has been taken.

The reinstatement of the awards will depend on whether Labour councillors get the support of the Liberals. The chief executive of the council has already intimated that the "surprise windfall" should be held to keep the rates down next year.

Lecturers' representatives for the recently merged Bradford and Ilkley Colleges have agreed to Bradford Council's demand that 20 posts in higher education should go in this academic year.

The loss of jobs through early retirement and voluntary redundancy was agreed by all the National Association for Teachers in Further and Higher Education branches and liaison committees for the Bradford region.

The loss of 20 jobs of establishment of 620 of both colleges will eventually save some £250,000 but is unlikely to help the immediate prob-

Have degree, will travel...

The grim realities of graduate unemployment were highlighted this week in a full page of *The Scotsman* headlined "Graduates seek employment".

More than 150 graduates placed personal advertisements in the hope of finding jobs. Most were from students who graduated this summer and they included a large number of honours graduates in scientific and technological subjects.

One ran: "Hons graduate, microbiology, 25, research and teaching experience, PhD pending, seeks employment, anything considered."

A 22-year-old graduate in mechanical engineering said: "Driving licence, seeks worthwhile employment anywhere in Scotland."

A BSc whose four year course at Napier College had included six months industrial training said only one student in his class of nine had found a permanent job.

He had applied unsuccessfully for 30 jobs and had now found temporary

Research handbook

Details of more than 60 Master's degrees of relevance to social researchers are contained in a new 200-page handbook, the first of its kind, published by the Social Research Association. The book ranges from those offering studies of theory and method in training skills in research. It costs £3.50 (£2 to SRA members) from the Ethnic Relations Unit, Aston University, College Road, Birmingham.

Correction

Last week's report of a *Times Education Supplement* survey of university popularity failed to make clear that 12 universities were excluded from its scope. Those institutions cited for coming at the bottom of a league table are not, therefore, the least popular.

Baby research lacks public funds

by Jon Turney
Science Correspondent

Test-tube baby pioneer Dr Robert Edwards has called for public funds to be made available to help infertile couples.

Dr Edwards, of the physiological laboratory at Cambridge University, said that lack of money had dogged research into test-tube fertilization since its inception.

He told a Eugenics Society symposium on developments in human reproduction, held at the Royal Geographical Society in London, that his work with Mr Patrick Steptoe since 1968 had been refused support by every funding agency in Britain. Although Mr Steptoe was based at a hospital in Oldham, they had never received a penny from the National Health Service.

The whole research programme was funded out of grants given to Dr

Edwards's laboratory at Cambridge by overseas agencies, notably the Ford Foundation. This maintains a fund for research on fertility which might lead to improved methods of contraception.

Dr Edwards said that when his team was successful in bringing a test-tube baby into the world they thought their problems would be over.

When Louise Brown, the first, was born in 1978, it was obvious that the procedure worked, and could help many infertile couples. But the work still received no government support.

"I have been personally to see every minister of health or chief scientist at the Department of Health since 1970, up to Dr Gerard Vaughan, but they all refused to help," he said.

As a result, he and Patrick Steptoe had been forced to set up their private clinic at Bourn Hall, near Cambridge.

Dr Edwards said the 54 babies born so far at Bourn Hall and three earlier births in Oldham, now showed that the procedure was safe, not too expensive and suitable for up to 70 per cent of infertile couples.

"We should insist the techniques be made freely available," he said.

Dr Edwards's comments on research funding and National Health Service treatment came three days before a new controversy arose over experiments on artificially produced embryos at Bourn Hall. At a medical journalists' meeting on Sunday he revealed that he had done experiments on more than a dozen "spare" embryos. The British Medical Association and other professional groups immediately condemned this work, and the BMA's secretary, Dr John Havard, urged doctors not to cooperate with any further studies on surplus embryos.

NELP trains Korean teachers



North-East London Polytechnic played a crucial role in the Korean government's recent decision to adopt the UK Technical Education Council (TEC) curricula and will train its technical teachers.

The polytechnic has just embarked on the first technical teacher training programme through its Anglian Regional Management Centre in conjunction with the Technical Education Research Institute attached to Gyeong-Gi National Technical College which will act as the pilot institution for the junior technical colleges in Korea.

The first Korean candidates for the examination based on the UK training programme are already in the country studying at NELP and at colleges in Barking, Southgate and Waltham Forest.

The initiative for the programme came from a NELP education management lecturer Mr Ian Waitt who was invited to visit Korea to discuss the relevance of TEC curricula out there. He was invited back the following spring after discussing it with the Technical Education Council, to draw up plans to implement a pilot project.

This was followed by an announcement in August from the Korean education minister that the scheme should be extended to cover the whole country.

A reception (see picture) was held last week by Dilnos Bookshops, which is to supply English language technical textbooks for Korea, to mark this milestone in Anglo-Korean co-operation.

Mr William Shelton (second from right), junior education minister, attended the reception to represent the renewed Government interest in the aspect of British education which makes it such a lucrative export.

"Our lengthy and extensive involvement with other parts of the world, the paramount position of our language through most of the world, and the presence here of many overseas students are further important national assets in this respect," he said. The reception was also attended by Korean Ambassador Dr Young Hoon Kang and Mr Gerry Fowler, director of NELP (left and right of Mr Shelton).

The strength of the TEC curricula is their adaptability to the needs of local industry which have made them particularly transplantable to other countries in a modified form. Mr Frank Fidgeon deputy chief officer of TEC pointed out, it is hoped that the present training project with NELP will lead to eventual TEC validation of the country's technical courses.

A Liberal sixth-form package

The Liberal Party has committed itself to provide grants for all 16 to 19-year-olds and to set up tertiary colleges to replace all existing sixth-form and further education provision in the same age range.

The party's annual conference in Bournemouth last week also endorsed a new youth charter calling for all young people aged 16 or over to be given full "social, economic, sexual and political" rights, including the right to stand for Parliament.

In a comprehensive motion on tertiary colleges, the Liberals want to see all 16 to 19-year-olds given a valid foundation course for future employment and entry into higher education. The party wants a balance between academic and vocational courses and liaison with industry.

It is also aiming for a higher level of entry into higher education, and a new "rational" system of financing for all students.

The motion was put by Mr John Waller, a Surrey businessman and a governor of a tertiary college, who called on education authorities and industry to provide coordinated education, training, and work-creation relevant to the community.

It was strengthened by an amendment from a group of young delegates from London which committed the party to replace all existing 16 to 19-year-old provision by tertiary colleges. The original motion was described as wishy-washy.

The youth charter, drawn up by a commission of delegates at the conference, accuses society in general and all political parties - including the Liberals - of being "patronizing and hierarchical", and says that this has led to a widespread alienation of youth.

The charter urges that young people should have the right to choose at the age of 16 between work, education, training, work experience and community service. Among other demands are contact centres for young unemployed, fair provision for the needs of homosexual youngsters, and recognition of the special needs of rural youth.

The charter also attacks the Manpower Services Commission for being out of touch with the needs of young people. It says the MSC should be subject to increased local control and more youth participation. It urges more funds for the Youth Training Scheme to include an educational element in the training.

Mr Alan Leaman, a delegate from Newham North-West, who proposed the charter, said too many young people were now alienated from conventional parliamentary politics. "Young people are mostly involved in their own alternative politics. The charter is an attempt to get some recognition of their needs and to adapt the system to bring in young people."

The Liberal Party is urged to draw up a youth manifesto working with the Union of Liberal Students and the Young Liberals.

'Profiles' identify change

Further education colleges are altering their course content and teaching methods as a result of a new series of "profiles" introduced by City and Guilds Institute, a new report says.

The profiles, which come in two parts, National and Centre, supplement examiners' reports and provide additional information about student performance. They also enable colleges to compare the achievements of their students in relation to the national picture.

The report is based on a survey by the institute's Test and Measurement Research Unit of a representative sample of 547 colleges. It says the profiles' main use has been in identifying changes needed in teaching and learning on courses.

On the curriculum, the profiles were used to identify and investigate apparent weaknesses in course content or coverage and led to a consolidation of teaching and testing in weak areas through the introduction of assignments.

The report says the profiles led to an increased awareness by staff and students of problem areas and to the opportunity to pay more attention to weaknesses. They also enabled a more critical examination of the teaching methods and gave the opportunity for staff discussion on the analyses presented and for staff/student discussions along similar lines.

In particular, colleges are using Centre profiles to provide information to others, such as an academic board or college advisory committee, about student performance as compared to the national profile.

Colleges have also pointed out that another use would be to relate Centre profile results to other sources of information.

North American news

Video prescribed for engineering ills

from Peter David WASHINGTON

Far-reaching changes in the way the United States trains its engineers were called for this week in a report from one of the nation's most influential engineering schools - the electrical and computer science department of the Massachusetts Institute of Technology.

The report calls on universities and industries to collaborate in an ambitious programme which, by using newly pioneered distance-learning techniques, will enable working engineers throughout the country to receive regular university courses updating their skills and knowledge.

MIT issued the report on the hundredth anniversary of the founding of its undergraduate electrical engineering programme, which was the first of its kind in the United States. Its authors clearly intend the report to usher in equally historic changes in the future pattern of American engineering education.

In a discussion of the impact of accelerating technological change, the report claims that it is no longer possible to base the training of engineers solely on a fixed period of formal academic education. It recommends loosening the barriers between universities and industry to provide engineers with "lifelong cooperative education".

Engineering is becoming more like medicine in the amount of education and internship needed to reach full professional status, the report says.

"Reaching true professional status today requires at least a master's degree programme focused on a particular specialty, followed by a year or more of on-the-job training under an experienced practitioner," it says.

"Moreover, retaining such a professional status requires continuous updating through both formal and

informal study."

Conceding that universities alone do not have the resources to introduce an extensive national programme of lifelong training for engineers, the report calls for the creation of a super-council of industries, professional societies and engineering schools to implement the necessary changes.

This council - run by a board consisting of chief officers of the member organizations - would be responsible for preparing a national plan, raising development funds and promoting new courses.

"The development and implementation of such a programme will face many 'difficulties and will take time. It will require not only major educational initiatives but also educational changes in both industry and academia, similar to those that took place in the decade after World War Two," the report says.

The report praises existing experiments in providing lifelong education but argues that the problems in engineering education are so intense that they can no longer be solved by incremental improvements.

It continues: "A quantum jump is needed, amounting to a revolution in engineering education, which will require, in our view, major changes in the institutions concerned with it."

At the heart of this "quantum jump" the report envisages a massive programme of off-campus teaching, involving 10 times as many part-time students as there are full-time students presently enrolled in engineering schools. By it discounts the ability of the already hard-pressed engineering schools to recruit enough new staff for the programme.

Instead, it proposes the adoption nationally of a pioneering technique of television-based instruction developed by Stanford University to enable small groups of students to

take engineering courses away from their campus.

Under the Stanford system of tutored video instruction (TVI), recordings of engineering classes are shipped to distant locations and played to groups of three to 10 students assisted by a local tutor.

The tutor encourages students to stop the recorded lecture at frequent intervals and discuss the material presented. But the tutor does not have to answer complex questions from the students; these are referred to the original Stanford lecturer by telephone and the answers discussed at the next meeting.

Both Stanford and MIT claim that the TVI system has proved highly effective, with students performing at least as well as their counterparts taking the same courses on campus.

According to the MIT report, Stanford's TVI system offers a simple and cheap way to teach a large number of students scattered at many locations. It permits flexible scheduling of classes and does not require special expertise on the part of the local tutors; they only need to be good discussion leaders with slightly better technical preparation than their students.

Engineering schools which do not already offer a master's degree programme for working engineers are urged to do so using the TVI system.

At the same time, company managements are asked to encourage and support formal study by engineers of all ages.

Ultimately, says the report, lifelong cooperative education in engineering will import many of the attitudes and values of the academic world into industry, with a reciprocal transfer of industrial knowledge to the universities. Features of the new regime in engineering education would include:

- Replacing the present break between full-time work and full-time study by a "gradual transition" extending through most of the professional life of an engineer;
- Joint sharing by industry and universities of responsibility for the continuing education of working engineers;
- Encouragement and support of formal study at the workplace by a community of scholar-practitioners, including both mentors and peers;
- A collaborative effort by industry and higher education to distil significant new knowledge from the literature immediately and present it for assimilation by "the culture of engineers".

As an earnest of its belief in this new concept of engineering education, the MIT report recommends major changes in the work of its own electrical engineering and computer science department, which has more than 1,500 students and conducts \$30m of sponsored research a year.

The most important change would be the introduction of a new master of engineering degree for students who entered engineering jobs immediately after finishing their undergraduate courses. The programme would consist of at least two years' part-time study at the workplace followed by a term on campus.

The report acknowledges that the changes it recommends at MIT and nationally will not be easy to introduce, particularly because of a shortage of engineering staff at universities and the resulting over-commitment of academic resources.

It adds: "Large organizations, whether academic or industrial, are naturally conservative and resistant to rapid change. This is understandable. On the other hand, the current rapid rate of technological progress demands a correspondingly faster response time on the part of institutions."

According to figures compiled by the committee, the Soviet Union maintains a cadre of more than 7,000 specialists on the United States. In America itself fewer than 200 students are expected to complete doctorates in Soviet studies this year.

Admiral Robert Inman, former deputy director of the CIA, also testified in favour of the new Bill. He said that while American technical intelligence was of a high standard, the nation's understanding of the structure and intentions of the Soviet system could be improved.

Alarm about the poor state of Soviet studies was raised in a report in February by the International Research and Exchanges Board in New York. In it, Mr Walter Connor, director of Soviet studies at the Foreign Service Institute, said the United States needed at least 1,700 extra experts on the Soviet Union and Eastern Europe.

Writing in the same report, Mr Robert Legvold, an expert on soviet affairs at the Council on Foreign Relations, claimed that the number of systematic studies of Soviet policy had dwindled every year over the past decade.

Soviet studies boosted

by our North American Editor

Prompted by reports that it is learning less and less about its principal adversary, the United States government is considering setting up a special endowment to encourage academic study of the Soviet Union in universities and research institutes.

At hearings in the Senate last week witnesses from academia, the Central Intelligence Agency and the Army said Soviet studies were in decline in the United States while the Soviet Union was boosting its research on American society.

Dr Howard Swearer, president of Brown University, said it was essential to provide more money for the field which had been built up over three decades but which was showing signs of rapid integration. He said few new academics were going into Soviet studies and the Ford Foundation, which once spent \$40m a year on Soviet studies, had reduced its spending to \$2m.

The hearings were convened by Republican Senator Richard Lugar, chairman of the European panel of the Senate foreign relations committee. The senator is sponsoring a Bill which would set up a \$50m endowment to encourage Soviet studies.

"The hard truth is that our national capacity to analyse the views and actions of our primary adversary is seriously eroding," Senator Lugar said. "Nearly half of the recognized academic experts currently working on Soviet affairs will be dead or retired by the end of the 1980s, and there are few new students to replace them."

Many institutions of higher education have come for the first time under the jurisdiction of universities, and have had to overhaul their examination systems at short notice. One new university rector was apparently so confused that he decided not to introduce the regulations.

Some students are unsure if they will be able to continue their studies because the university on which their colleges had become dependent offer a four-year course while their college course ended after three.

The problems of students who also work for a living have a quite different cause. Under a new discipline regulation introduced by the all-powerful Higher Education Council, greater emphasis has been placed on attendance at classes, and many working students fear they will be unable to comply with the standards set because of their job.

The least of these students' worries concerns the identity of their new deans. All deans of faculty were due to be replaced or renominated by the end of August, but there have been delays.

Some states are considering counter-measures. The state of Hesse proposes to introduce tuition fees for students who take too long.

More than 10 per cent of Germany's students are not "genuine". It is claimed. They enroll to enjoy the advantages of student life, such as cheap health insurance, tax relief for parents, and cheap travel on public transport.

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Overseas news

Soviet exchange ban relaxed

from Geoff Maslen MELBOURNE

The Australian government has relaxed a ban on cultural and scientific exchanges with the Soviet Union imposed after the Soviet invasion of Afghanistan.

Australia was threatened with a boycott by the rest of the international scientific community as a result of the embargo.

An international conference of biochemists in Perth last month was disrupted when Australian officials refused visas for two senior members of a 20 strong Soviet delegation. As a result the entire Soviet delegation withdrew.

The Australian Academy of Science warned the government that as a result of the Perth confrontation, Australia was likely to lose 'the right to host big international conferences.'

The foreign minister, Mr Street, said that although other western countries had imposed similar policies, Australia's restrictions were by far the most stringent. He told par-

liament. "The Soviet Union has clearly embarked on a policy to try to prevent Australia being used as a venue for multilateral conferences of one kind or another. We are not prepared to give the Soviet Union that satisfaction because it is not in our interests to do so."

Mr Street said that so far as genuine, multilateral scientific conferences were concerned, Australia would maintain conditions similar to those applied by like-minded western countries in their national interests. There would be no change in Australia's policy on bilateral contacts.

The president of the Australian Academy of Science, Professor Arthur Birch, said that he greatly welcomed the decision that visas would be given to bona fide scientists attending multilateral international conferences.

It had come in time to influence discussion by the International Council of Scientific Unions which could have banned all international meetings in Australia for the foreseeable future, Professor Birch said.

Rules change hits re-sits

from Bernard Kennedy ANKARA

The academic year begins amid great uncertainty for many Turkish students. Those retaking exams, whose colleges are being incorporated into new universities and of who study patterns have had most worry.

The reorganization and centralization of the complex examination system has left it unclear exactly who has the right to retake examinations and who is entitled to continue his or her course without doing so.

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The problems of students who also work for a living have a quite different cause. Under a new discipline regulation introduced by the all-powerful Higher Education Council, greater emphasis has been placed on attendance at classes, and many working students fear they will be unable to comply with the standards set because of their job.

The least of these students' worries concerns the identity of their new deans. All deans of faculty were due to be replaced or renominated by the end of August, but there have been delays.

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Foreign dons refuse to sign anti-PLO pledge

from Benny Morris JERUSALEM

A question mark hangs over the opening of the three universities in the Israeli-occupied West Bank following the promulgation of an anti-PLO order by the military government and the recent expulsion of the three non-resident lecturers employed at El-Najah University in Nablus.

The lecturers, reportedly holding Jordanian citizenship, refused to sign an undertaking to refrain from supporting the PLO in any way. The government this month issued the order requiring all non-resident lecturers at West Bank universities to sign the undertaking as a condition for renewal of work permits. Without these permits, their stay in the area is rendered illegal.

El-Najah, Bir Zeit and Bethlehem universities employ around 100 non-resident lecturers, constituting a considerable part of their academic work force. At least 30 Americans, 10 Britons, 11 Jordanians, two Irishmen and one Pole, face expulsion if they persist in their refusal to sign the undertaking, which is entitled: "A

commitment for the issuance of (a) work permit for the academic year 1982/83."

The undertaking includes the following passage: "I hereby declare that I am fully committed against indulging in any act and offering any assistance to the organization called the PLO or any other terrorist organization that is considered to be hostile to the state of Israel ... of a direct or indirect nature."

In reaction, an ad hoc committee representing the foreign passport-holding lecturers has written to foreign embassies and consulates to intervene in the dispute.

The lecturers object to signing a formal commitment to refrain from action directly or indirectly supportive of the PLO and, in their letter, charged that "the loose and ambiguous wording" of the required undertaking "would appear to impose unacceptable limits on our rights of expression."

The Israeli authorities have renewed their requirement for a yearly academic licence for each university, a requirement based on a 1980 military government order. The universities claim that this was not raised last year.

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Protest in Israel against the massacre of Palestinians in Beirut

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Universities face freeze and squeeze

from Lindsay Wright WELLINGTON

New Zealand's universities will be subject to a 3 per cent cut in government spending but spaced over three years.

Only one eighth of the total cut has been imposed for the current financial year. Next year's reduction will bring the cut up to half and the full reduction will apply for 1984/85.

At Victoria University, for example, the government grant of around \$22m (£12.2m) will be reduced by \$99,000 (£55,307) for 1982/83, by about \$300,000 (£167,600) further next year, and by a further \$400,000 (£223,464) for 1984/85, to give a total real reduction of nearly \$800,000 (£446,927) on current levels.

Compounding the universities' budgeting uncertainties is a government imposed wage and price freeze which will affect the level of tuition fees.

At the beginning of the quinquennial the government told the universities that their grants would be reduced each year and the reductions were to be offset by additional income from increased tuition fees.

With the price freeze the universities do not yet know if they can increase their fees. If they cannot, Victoria University would suffer a further \$170,000 (£94,972) drop in real income.

Reductions in staff levels may be inescapable, though it seems likely this will involve the disestablishment of posts as vacancies occur, rather than planned redundancies.

Victoria's vice-chancellor, Dr Ian Asford, has told staff that the university will have to review its present range of courses, teaching techniques, class sizes and enrolment restrictions in order to preserve existing standards of teaching and research.

An astrophysicist who came to Victoria only three months ago from the Max Planck Institute in Germany has said the university will have to re-examine its faculty and departmental structures to see if they can be "more advantageously disposed", and has told departments that improved management of their annual grants and allocations will help the university to surmount problems of tighter funding.

The full effect of the cuts will take some time for the universities to assess, but their impact is likely to bring painful readjustments in a university system where total student numbers cannot be controlled by the university themselves.

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National ability test shows improved scores

For the first time in 19 years American university students have shown improvement in the Scholastic Aptitude Test, the major test of academic ability taken by a million school leavers every year.

Although the improvement is slight, Mr George Hanford, president of the College Board which administers the tests, said last week it could mean the end of a two decade decline in SAT scores which had troubled parents and schools.

"The long term decline in SAT scores has been halted by the 1982 seniors. This year's rise, however slight, combined with last year's holding steady, is a welcome sign for parents, educators and students."

The average SAT score in 1981/82 rose over the previous year from 424 to 426 in verbal ability and from 466 to 477 in mathematics, the college board said. It was the first rise since 1963 when scores began a precipitous decline. The new rise still leaves today's students well behind the 1963 level of 478 in verbal ability and 502 in mathematics.

SAT scores play a big part in the admission of students in university and have come to be regarded as an index of school performance. High schools use their students' scores as diagnostic tools and colleges use them to select applicants for higher education.

In mathematics, the test concentrates on problem-solving with arithmetic, algebra and geometry. The verbal test measures vocabulary and comprehension. The test is administered in the form of multiple choice answers with a theoretical top score of 800 and bottom score of 200.

The decline in average scores which began in 1963 was halted in 1980 when the verbal scores had dropped by 54 and the mathematics score by 36. Although widely interpreted as an indication of lower standards in the schools, the college board claimed that part of the de-

cline could be attributed to an increase in the proportion of low ability students taking the exams.

Release of the new figures has prompted a debate about the significance of the slight improvement. Professor Alexander Astin of the University of California, author of an annual survey of the abilities of college freshmen, said in an interview with the Washington Post, that the results should be interpreted cautiously.

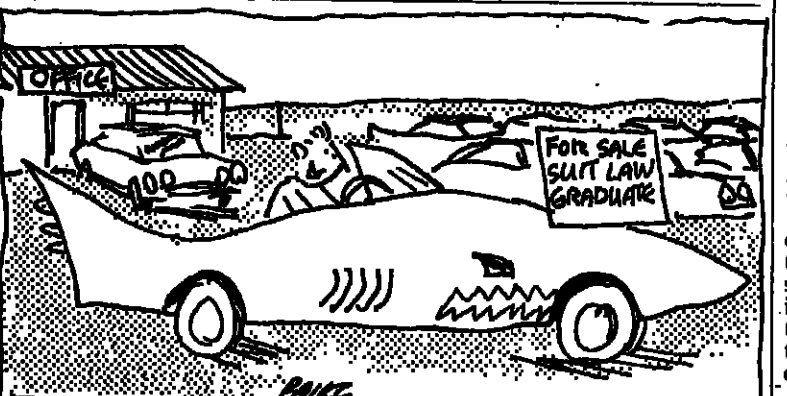
"After such a large drop it is hard to know if this is really a turn-around. There is not infinite room for the scores to keep going down. The real question is whether they will ever rise again to the point where they used to be," he said.

College board officials, however, claimed that the new scores tied in with other encouraging indications that schools are beginning to place a renewed emphasis on solid academic skills.

Scores in the College Board achievement tests, which are given in 15 academic subject areas and taken by about one in five students taking the SAT, also rose five points.

Mr Robert Cameron, research director for the College Board, said the score improvements were consistent with an improving trend indicated by a number of independent indicators of educational progress.

"In the last two years, there have been reports of improved reading scores in urban and state assessment tests and by the National Assessment for Educational Progress. Teachers have also been reporting greater interest among students in academic subjects and achievement," he said.



Private view of the public sector

It was not easy to root out Sir Norman Lindop at the British School of Osteopathy where, after 30 years in the public sector and 16 as the director of Hatfield Polytechnic, he is now principal one of the more established professional institutions outside the National Health Service.

The school's rabbit-warren building does not lend itself to instant access. His modest attic office is perched high up overlooking Trafalgar Square, where, as it happened, the long slogan-drafting NLS day of action demonstration was wending its way noisily to Hyde Park.

Sir Norman has slipped quite happily from private to public sector and back again. His mixed education views have enabled him to traverse the binary line from vice-president of the National Union of Students, then technical college principal to head of one of the country's most prestigious private medical schools.

Looking back over the lengthy gestation period and operation of the polytechnics, he thinks of balance that they have not done so badly. At Hatfield, where he was lucky enough to inherit a new complex with few of the split-site problems, he believes that they achieved much of what they wanted to. These achievements included attracting a high proportion of part-time students in spite of the fact that the polytechnic is outside a major city.

"I believe that polytechnics cannot be ignored now and are here to stay," he reflected. "They have an excellent base in trade and have a flexible structure which makes them more adaptable to change than the universities."

"Pragmatically, they respond to local needs which is a powerful reason why they should persist because they service clear social needs."

If left in the hands of the academics, which is the problem with the universities, he believes, polytechnics would come to focus on more and more specialist courses. This is a pattern from which they have not been entirely immune but which their *raison d'être* helps to protect.

"The worst thing which could happen to polytechnics is if they were to turn into universities. They were set up in the further education tradition to respond to the market place - and they will have to go out there again to find out what people want."

Felicity Jones meets Sir Norman Lindop in the first of three interviews with founding fathers of the polytechnics



in particular for adult returners," he said.

"They will have to experiment with entry qualifications rather more than they have done in the past."

It is one of Sir Norman's major regrets that the arrival of the polytechnics on the education scene did not change the social composition of students in any substantial way. Middle class students still fill the lecture rooms as they had done at the colleges of advanced technology.

He no longer looks to tertiary education to correct the imbalance but believes the solution lies in overcoming the high drop-out rate from education at 16.

"It presents the biggest single problem for education today. If that can be solved, then the future of higher education will follow naturally," he argued.

As he sees it, one of the genuine achievements of the polytechnics was the development of part-time and sandwich degree courses for which there had been no previous models. There were, however, plenty of pressures which continually undermined the good intentions.

"There was a seal of approval on the three year degree course which made polytechnics unadventurous and conventional. Of course, what nobody expected was the great public demand for degrees and the relative decline in part time technical subjects," he said.

"The Council for National Academic Awards felt that it had to prove itself in the academic world. A

combination of factors meant unfortunately that the ideas of transferable credit, and open access to meet the reality of the in-and-out model of higher education did not materialize as it should have," he added.

Sir Norman thinks serious attention should be paid in the future to the idea of a voucher system whereby students cash in education vouchers at different stages in their lives and careers.

In the late 1960s and early 1970s there was warm enthusiasm for the polytechnic ideal. By the end of the decade, however, the dream appeared to have turned sour and life became decidedly uncomfortable.

Reasons are varied - the growing disillusionment with education *per se*, the recession, the declining political significance of higher education as a vote catcher.

Sir Norman puts much of the blame on the handling of the teacher training merger with the polytechnics in 1973.

"There was never any party political division over polytechnics. Both Margaret Thatcher and Reg Prentice as secretaries of state for education were supporters. It was more a product of the fact that the original idea of setting up institutions complementary to the universities was compromised by the solutions sought to the teacher training problem," he said.

In 1966 the White Paper singled out 70 colleges from whose ashes the polytechnics were to rise. But it was more than four years before all 30 were established and before they could take firm root plans to reorga-

nize teacher training rampaged upon the scene.

"The Department of Education appeared to be taken unawares by the teacher training plans which affected 25 of the polytechnics eventually and instead of dealing firmly with it, the department fudged the issue," he said.

"The implication is that with the re-treatment of key figures at the DES - who had held a clear vision of what polytechnics could be - the conviction which had accompanied the early formative years was lost."

Sir Norman personally regrets that the department did not take a stronger line originally to build teacher education into the polytechnics and that they in turn did not take advantage of teacher education.

"The continued dispersal of teacher training gave rise to diversification instead of concentration. Also, I cannot believe that isolation was a good thing. Teacher education should be in the mainstream but I have to admit that it has not always worked out so well in practice," he said.

Another problem was the lack of capital in the early days to make sense of the split sites. "It is only in recent years that we have come anywhere near universities' level of funding. Student accommodation has also trailed behind," he added.

"Universities decided that they needed a new building and built it. Polytechnics had to go through local authorities and the department which can take years and had to sit through stop-go situations due to a change of policy. One building at Hatfield took

eight years to build and was shelved twice.

"The allocations were insufficient to bring up the much sub-standard property and overcome split sites. We would have needed much more money especially when we were also aiming to be as open and comprehensive as possible," he reflected.

"The need for rationalization, he believes, is self-evident. Until the National Advisory Body on local authority higher education establishes itself, however, it is difficult to draw conclusions.

"Clearly there are too many higher education universities and colleges and it is a major policy problem which needs to be overcome. But I think the polytechnics are well placed to withstand the changes, more so than a number of universities," he said.

Higher education, however, catches even fewer votes than it did a decade ago and Sir Norman detects a certain "woolliness" about its role.

"You cannot quantify it, however, in simple financial terms with its complex components," he said, protesting that he is not a monetarist. He nevertheless sees higher education as being squarely placed in the grub by business of paying its way and points to Cranfield Institute of Technology which gets less than 50 per cent of its income from Government.

"Polytechnics get 80 to 90 per cent from Government but Cranfield's position could not be applied to all. There has to be an element of public provision but I would not object to multiple funding."

On the binary policy, for example, the best intended contributions from university dons drew sharp retorts from the more militant representatives of the public sector. One comment that the only socially defensible educational division is at 16 but that "it would be idle to pretend that there is no difference between the learning experience at university and a polytechnic" was condemned as a "distasteful restatement of effortless superiority."

Some university representatives were equally quick to dismiss the achievements of the Council for National Academic Awards or to deny the competence of administrators no longer directly involved in academic study - they would become the enemies of higher education. Those organizations which had submitted views on the structure and governance of the system also received short shrift from some.

Undoubtedly the greatest unity was achieved in opposition to proposals for regional government of higher education, along the lines of the Social Democratic Party's policy. But even this led to disagreement over the role of the regional advisory councils and the local responsibilities of the universities. It was suggested that if universities were purely national and international institutions, fewer than 45 might suffice. However, the expanding field of continuing education was accepted as one in which the universities did perform a local function.

Although the idea of a commission proved more popular than a new ministry, it was pointed out that some seven ministries of higher education had been created in Europe in recent years and only one (France) had so far been abandoned. However, his schemes were criticized for endangering the concept of the "seamless robe" of education, allowing coordination and continuity between the various parts of the service.

There were some calls for more power to be vested instead in the Department of Education and Science, which was generally thought to be too passive a force. More use of political advisers to work with rather than check on civil servants was one suggestion to encourage more constructive support for ministers. Politicians past and present laid some of the blame for previous Government inaction at the door of DES officials, whose representatives answered in kind. A spirited after-dinner session saw civil servants accused of conservatism and occasional obstructionism as well as unnecessary secrecy. The response was that politicians lack clarity and do not take a long-term view because of the short timescale between elections.

The one local government politician, Councillor Lister, offered some

Some participants were satisfied with a straightforward merger of the two bodies, but doubts were expressed about the competence of a single organization with responsibility for such a wide range of courses. The same arguments applied to a tertiary

Mixed bag offers medley of ideas

by John O'Leary

An unusually wide variety of participants ensured that there was little agreement on the main themes under discussion at the last of the Leverhulme/Society for Research into Higher Education seminars. Even the agenda for the discussions on structure and governance became contentious as the tensions between the universities and the public sector, politicians and civil servants, academics and bureaucrats came to the surface.

It was generally accepted that higher education needed to improve its popular standing, that the structure of the system might be unchangeable in the short term but would have to alter thereafter and that planning had to be more expertly based and take into account all provision. Solutions proved more difficult to agree upon and the seminar's recommendations represented a succession of compromises.

From the start, when Lord Crowther-Hunt, the chairman, set the task of producing a policy which would be acceptable to all possible governments, there seemed to be insuperable difficulties ahead. While there was much constructive debate and new ideas in abundance, more than one speaker noted ruefully that the several foreign visitors would take home an unfortunate picture of ingighting among the very groups which should be allying to promote higher education.

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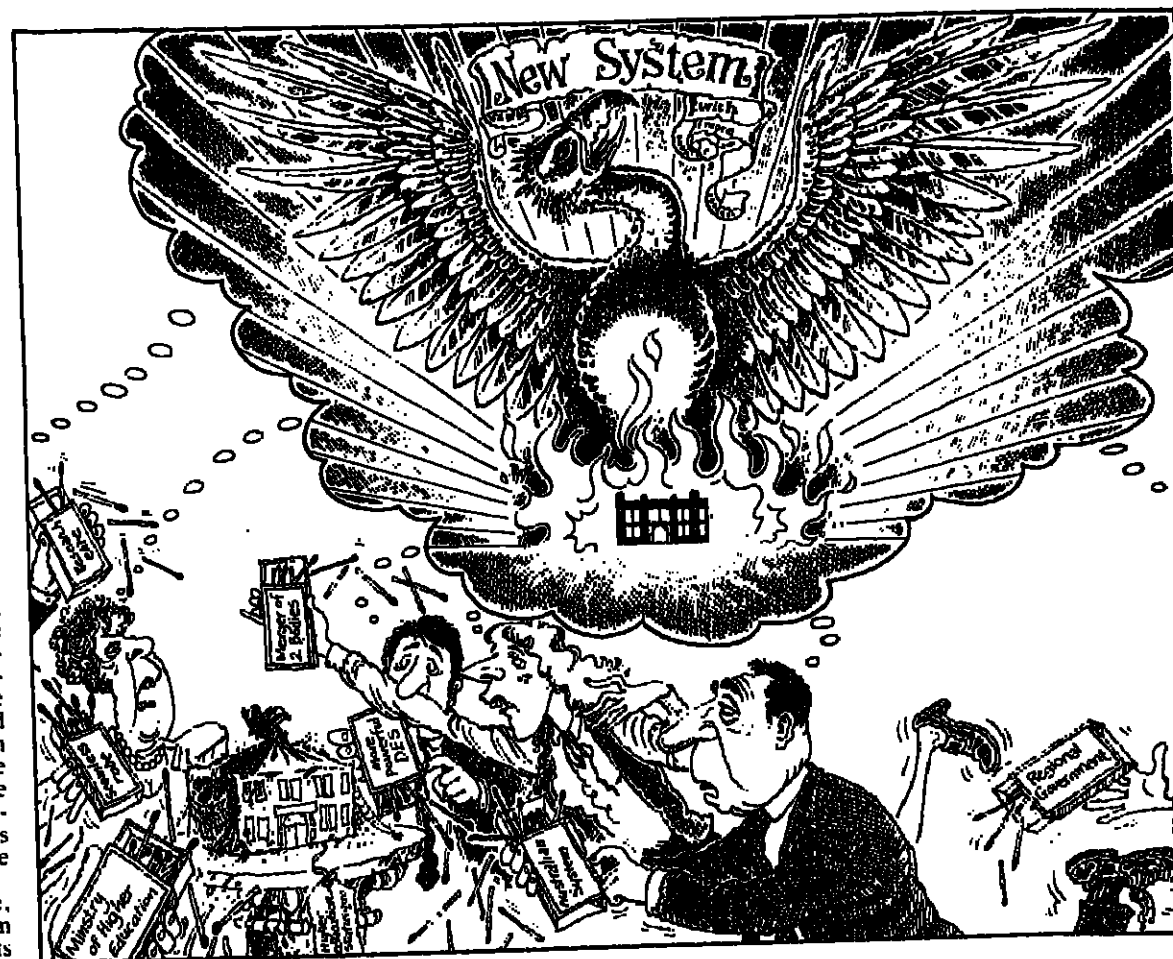
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LEVERHULME SEMINAR REPORT: STRUCTURE AND GOVERNANCE IN HIGHER EDUCATION

commission dealing with all education beyond 16.

Professor John Ashworth, vice-chancellor of Salford University, put forward a more radical plan involving the establishment of a ministry of higher education, which would administer "baseline funding" to all institutions. This would cater for basic running costs only, putting all other funds up for bids to the various interested Government departments and private sources. Quality control could be left to a select committee of the House of Lords, which would have the time and the detachment to perform the task. Such a scheme was necessary because of the shortcomings of the UGC, which did not have the necessary staffing to combine advice and administration satisfactorily.

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A strategy for the future

The seminar made the following recommendations for the future:

1. The Department of Education and Science, the University Grants Committee and the National Advisory Body should recognize that the protection and encouragement of institutional self-governance and initiative through the operation of multiple sources of funding, responsiveness to external societal demands and strong local/community involvement offers the best prospect for maintaining academic innovation and creativity.

2. Greater emphasis should be given to institutional autonomy. Autonomy, however, should be regulated by agreed institutional "mission statements" and considerations of national need and the patterns of demand. Funding should be in accordance with institutions' mission statements which should be the subject of a periodic review.

3. Representative local committees should be set up to coordinate and stimulate the provision of adult, continuing and post-experience education combining the interests of institutions, local education authorities and other local providers.

4. Machinery for cooperation at regional level among institutions of higher education should be set up by the institutions themselves to complement the closer working relationships between the UGC and NAB recommended below (see 12). UGC and NAB should take steps to stimulate better inter-institutional collaboration by the provision of funds to support particular schemes involving cooperation between institutions.

5. Priority should be given to adopting systems of course control which encourage academic initiative and speedy responses to changing student interests.

6. The UGC and NAB should place a high priority on the need for cooperation at officer, committee/board and subject committee levels.

7. UGC and NAB advice to Government should be published as should the criteria they use to make judgments between institutions.

continued on next page

John O'Leary looks at the agenda for the NAB's first weekend conference

Now for the serious talk

Today sees the start of the National Advisory Body's first residential conference, at which attitudes will begin to take shape on the major issues which will determine the organization's destiny. The spectre of college closures and the loss of polytechnic departments in the latest round of teacher-training cuts has become the most pressing of these. And the Oxford meeting will see the start of hard talking on precisely which institutions will receive the NAB's backing in the fight for survival and what will be the fate of those which feature on Sir Keith Joseph's final list later in the month.

But the original purpose of the weekend retreat - and still the most crucial subject for the majority of those under the NAB's care - was to discuss the distribution of next year's Advanced Further Education Pool. Since the establishment of the NAB came too late to influence the 1982/83 exercise, observers in the colleges and Science have been waiting to see what the new body makes of its opportunity to exert its influence on the system as a whole.

In fact, most of the work on possible refinements to the method of assessing pool allocations has been left to a joint technical group comprising representatives of the NAB, the pooling committee, and the DES. Until now, the board and committee of the NAB have been more concerned with reacting to immediate problems, such as the teacher-training cuts and low-recruiting courses, and planning for the years beyond 1983/84.

It will be surprising if the weekend produces demands for any substantial

change to the moderate (but important) changes being recommended by the JTG. For the NAB next year inevitably becomes one to mark time while the institutions and local authorities assess their priorities and the central body works out its grand plan for 1984/85. The main criterion for a distribution system for next year must be to satisfy as far as possible criticisms of the 1982/83 exercise while introducing as few new variables as possible.

This is very much the effect of the JTG's report to the weekend meeting. Criticisms of this year's distribution are answered (if not satisfied) individually and relatively minor modifications are proposed with the aim of making the method more flexible and correcting some of the more obvious shortcomings. The basis of the system will remain virtually unchanged, although the "major" colleges and institutes are likely to be put in a category of their own as a step on the way to their demand for equal treatment with the polytechnics.

The group's report contends that many of the complaints of unequal treatment for the colleges arose from misunderstanding, since institutions failed to realize that the different set of unit costs used reflected "historically different base positions, against which an equal squeeze was applied to all". But it still favours a three-way split, differentiating between the two tiers of colleges, if the data from this year's extended monitoring survey of costs confirms this as a

reasonable course. Four qualifications are suggested for "major" status, ranging from institutions with at least 80 per cent advanced work but as few as 425 full-time equivalent student places, to as little as 25 per cent advanced work but at least 700 FTEs.

Even this range of failsafes will leave a number of well known but small colleges of higher education in the third funding category. But the group decided that their inclusion might prejudice the whole system and might not prove of significant benefit to the colleges concerned in any case. They will benefit already from the more detailed monitoring survey on which allocations will be based.

Other complaints about the 1982/83 distribution have received less sympathetic treatment. Nine common complaints are dealt with in the report, but only three are accepted to the point where corrective action is recommended. Apart from the grouping of institutions, these are the calculation of full-time equivalents from part-time student numbers and the regrouping of certain subjects.

Credit for part-time students has long been a bone of contention in the public sector, which has seen itself less generously rewarded than the universities for a greater commitment. But the JTG encountered technical complications in trying to alter the weighting and has settled for a quiet marginal change which would give a clear signal to the system to protect part-time provision

but would not result in any significant changes in authorities' and institutions' common funding". Even this is subject to further consideration by the NAB and the pooling committee, since it could apply only to the common funding element of allocations and is therefore considered "presentationally incongruous and complex".

The splitting of subjects into three groups for the calculation of unit costs was one of the main sources of complaints from institutions and local authorities, mathematics, psychology and music causing most dissatisfaction. Of these, mathematics courses in computer science and related subjects will be moved into the more generously funded laboratory-based grouping, while psychology will not, despite claims that it is an essentially laboratory-based subject. Music will be reconsidered in the light of new data from the monitoring survey.

The whole operation will be made more sophisticated by the use of a new computer model now being completed at the DES. Its aim is to allow progressive refinements to the distribution methodology, enabling the NAB and the pooling committee to make late adjustments in the light of decisions such as that on the teacher-training cuts.

It should also allow the proportion of "further funding" - the element which compensates for special circumstances - to be reduced as the basic "common funding" becomes a more accurate assessment of average costs. The long-term aim of phasing

John O'Leary

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LEVERHULME SEMINAR REPORT: STRUCTURE AND GOVERNANCE IN HIGHER EDUCATION

Living in a state of permanent flux

Mr John Bevan, secretary of the National Advisory Body, gave a paper on "NAB - an interim solution?" His summary appears below.

The National Advisory Body for Local Authority Higher Education is responsible for advising the Secretary of State for Education and Science on the provision of higher education for more students in more colleges than any other body. It covers about 200,000 students in over 350 colleges. In many respects, including its variety, the local authority higher education system differs from the university one, and yet the latter of the University Grants Committee and of NAB are now inextricably bound up together.

A primary funder is defined as the body which in relation to an institution has the primary responsibility for deciding (or advising) on funding. The seven primary funders in the United Kingdom are: for universities - University Grants Committee; direct grant institutions (Open University, Grant-in-Aid Department of Education and Science; voluntary (mainly church) colleges - Department of Education and Science; local authority higher education colleges, England - National Advisory Body; local authority higher education colleges, Wales - Welsh Advisory Body; central institutions, Scotland - Scottish Education Department; local authority higher education colleges, Scotland - regional councils in Scotland; higher education in Northern Ireland - Department of Education for Northern Ireland.

Their areas of responsibility are not self-contained, and one consequence of the present distribution of responsibilities is that the Government, although having a national view about higher education, does not express any overall view nor publish overall planning figures.

There are, no doubt, cogent arguments why the provision of higher education should differ between the provinces, but they do not appear to have been looked at in the same way on both sides of the binary line. There is also a powerful general argument that a plurality of primary funders is a good thing.

However, it is apparent that the present arrangement of primary funders is neither logical nor related to the patterns of student need/demand. For example, teacher training provision cannot be planned without considering the provision in an area as a whole, whether offered by a university, higher education college, or a voluntary institution.

The disparity in the distribution of powers between the institution and the centre is also of interest. The centre of power in a typical univer-

sity lies in its senate; it can vary the university's programme without either external approval or external validation. On the other hand, the academic board of a polytechnic knows that principal, governing body, and local education authority all have their powers, and that the college needs both external approval and external validation before it can mount a new course.

Neither the present distribution of powers nor the present state of institutional "autonomy" is logical or appropriate. If a system of higher education for some half million students was now being established, it would not feature two so radically different control systems in respect of institutions whose size, student populations, and range of provision are in many respects similar.

On this argument senates would have less effective power, and academic boards more; the existing college control for local authority colleges would disappear, but universities would receive a real external input into planning and validation. The alternative argument is that it is extremely difficult to operate effectively at or near an inherently unstable balance point. This argument contains the proposition that the university and polytechnic models are equally valid in their own ways.

There are a number of signals in the system that mark a series of possible responses to the questions identified in this paper. One is the direction in which NAB is moving in respect of institutional freedom of planning and action. NAB has already declared itself in favour of a move from individual course control to programme planning, in favour of an extended planning horizon, and in favour of the primary input into the overall plan being the college's own plan.

It has assumed the continued existence of validation external to the institution, and of responsibilities for the planning of provision outside the college both at the local and regional level, and also at the centre, in a way not paralleled by the UGC. NAB has also advised the Secretary of State on the issuing of Circular 5/82, which provides an accelerated approval and validation system for some new course starts in 1983.

A major problem for NAB is the form of its relationship with the colleges for which it is responsible. The variety is considerable: for some colleges, the advice offered by NAB goes to the whole essence of the institution; for others, however significant to those directly involved, it is at the margin of the college's activity.

Taken together with the number of colleges, and with the established



John Bevan: "early changes unlikely"

fact that some aspects advance further education provision cannot be intelligently examined without taking proper account of the associated non-advanced further education provision, the facts lead almost inescapably to the conclusion that the principle of relating equally to all colleges in scope is incapable of effective realization in practice.

The speed with which NAB has set itself to impact on the system owed much to the radical restructuring inevitably consequent upon the Government's marked reduction in funding. It owes a certain amount also to the fact that NAB was seen by some as an interim solution only; some evolution of the structure must take place.

In particular:

- There are too many separate primary funders.
- There must be some resolution of the autonomy question.
- The planning horizon needs to be the same for the entire system, and the planning input from different sectors consonant one with another.
- The interfaces within and between colleges, and between advanced further education and non-advanced further education are unstable.
- The status of the primary funders needs changing.

It is natural to look to other countries for possible solutions. Many in the UK have advocated evolution towards the Australian model, but so many national parameters differ that one must question how well the model could transfer. Nevertheless, solutions are all clearly structured in the Australian system of four statutory councils operating in an integrated way within a clear legislative framework.

In the medium to long term, therefore, the possibility of a truly "all UK" post-school education council, operating above evolved versions of the existing primary funders, cannot be ruled out. In the short term, there is such a low probability of finding legislative time to enact a primary statute with advanced further education and/or non-advanced further education, that any early change of significance seems most unlikely.

Extending across the frontiers

Mr John Pratt, director of the Centre for Institutional Studies at North East London Polytechnic, gave a paper on the Council for National Academic Awards. His summary appears below.

The Council for National Academic Awards can be regarded as having three main purposes - as an instrument of higher education policy (the council has been the main instrument of binary policy); as a device to give national validity to courses in local institutions; and as an instrument of innovation in higher education. It has in the past been successful in all three.

It is important to distinguish, however, between purpose and process. The CNA's processes have been successful in establishing national standards, encouraging innovation, influencing the Government, structure and resources of institutions, encouraging self-examination and self-evaluation by institutions and offering staff within them a way of combating academic conservatism. But the council's processes suffer from problems. They are bureaucratic and time-consuming; they attempt to use bureaucratic information to make judgments and so concentrate on organizational rather than academic matters; they are inquisitorial. The development of partnership in validation offers improvements in some of these respects, but it still does not offer genuine partnership with institutions.

All this implies that the CNA has not yet resolved fundamental problems of the validating process. It is relying on the assumption that comparability of standards is established by prescribing in detail entry qualifications, course lengths, structures and so on, rather than seeking to ensure that the council's own processes for judging validity inspire confidence.

The existence of the National Advisory Body for public sector higher education raises further serious questions about the CNA's function in the future. The CNA itself has a role in offering NAB "objective" academic advice to enable it to exercise its responsibilities in advising on the allocation of courses and funds. The CNA has also essayed the idea that it might itself become the permanent national body, though this has not yet found favour with ministers.

The CNA's views do not, however, fully recognize the strengths of its existing role and positions. They do not distinguish between two distinct functions - validation and "academic judgement". The

council is right to insist on the principle of separation of powers and that its task is to validate courses which meet certain minimum standards. This is different from NAB's job of deciding which courses should be provided.

What is needed is thus some measure of the "educational value added" to students by the course - the skills and abilities and knowledge that students have at the end of the course that they did not have on entry. So far no one has developed such measures. Most educational assessment is tautologous: the CNA has validated not the output of courses but the input. Educational value added will offer a measure of qualitative output compared with quantitative inputs, and the CNA will be able to offer NAB public information about educational value added to help it reach judgments about the provision of courses.

It is important to note that validation will remain basically course-based, and this kind of approach is incompatible with ideas of validation of institutions or programmes of work - though not necessarily with the idea of programme approval of funding. The challenge for CNA is to maintain an approach to validation that derives from educational rather than economic requirements.

This issue becomes crucial in the light of the new circumstances the council faces. The key policy issue for the future of the CNA is the future of the binary policy. If this is to continue on the same basis as in the past then there will be a need for a central validating body for public sector institutions.

If the distinctions between the sectors are to be diminished, the CNA may become the body originally envisaged by the Robbins committee, merely offering a tutelage system for aspiring universities, and may eventually fade away when all aspirants have reached the promised land.

Current signals from the Government are conflicting, but they do make clear that higher education is expected increasingly in harsh economic circumstances to serve the needs of the economy, and that the public sector is to do so particularly. This suggests a continuing future for the CNA.

The move to this "instrumentalist" view of higher education, the demands for greater accountability in times of economic constraint, and the increasingly difficult choices that have to be made in allocating scarce resources are all problems that are faced by both parts of the binary system.

They raise questions about how long the universities can be self-validating and thus to an extent self-justifying, and how far the UGC can make resource allocation decisions without independent advice on the academic capacities of their institutions. These all point to a wider further role for the CNA - extending its range to cover all institutions of higher education.

Europe sets a local example

Mr Guy Neave, of the European Cultural Foundation's Institute of Education in Paris, gave a paper on "The regional dimension: some considerations from a European perspective". His summary appears below.

British universities, it is sometimes argued, are not sufficiently responsive to the needs of their regions. But with the appropriate legislative or administrative bodies to develop this, they could become more so.

These two convictions are controversial enough. But what evidence does the European experience provide that might enable us to see whether some regional form of governance might pose a reasonable answer to this issue? What are the virtues and value of having higher education brought more in tune with regional priorities? What arrangements have been made to promote and implement the "regional dimension"? Finally, what conclusion may be drawn, whether negative or positive, in Western Europe?

Paradoxically, the regional dimension in higher education is a very old one. Prior to the consolidation of the nation state and the rise of professional bureaucracy in central government, the regional aspect of higher education revolved around three features. Ancient universities such as Grenoble (1329), Leiden (1525) or Groningen (1614) provided the education for regional elites who, in due course, returned to the region to play a part there. Thus the university acted as a cultural, social and economic agent in its local environment. Its local commitment was reflected in the fact that its sources of finance and control, whether in the form of city fathers, merchant guilds or members of the church, were also firmly located in the region.

The modern European university emerged with the development of the modern bureaucratic state. Though student recruitment still continued to be local or regional - which tends in many cases still to be the pattern today - its new mission was to furnish suitably qualified labour for the central civil service.

Beginning in Sweden between 1720 and 1770, continuing in Austria towards the end of the eighteenth

century, this process of "national incorporation" reached its best-known expression in the Humboldtian reforms in Prussia (1809) and the setting up of the French Université Impériale in 1811.

Just as the university system looked towards the central state in Europe for high preferment, appointments in academia and other rewards, so too did its students. Universities, through national examination systems, became the pathways for entry to public service and as ways out of the region.

Thus from around 1800 until the 1960s, the region played less part in shaping the fortunes of higher education than the activities and initiatives of central government. The exceptions to this were Switzerland where there was direct control over higher education including the university directly exercised at cantonal level and Britain, where the establishment of the great provincial universities was the work of local enterprise and funding.

Beginning in 1966 and continuing through to 1977, five European countries began to seek ways of giving new importance to the regional domain. In France the university institutes of technology, in Norway the regional colleges, in Yugoslavia the *visle škole* and in Sweden the recently established "comprehensive universities" were seen as the main agents for resurrecting higher education's commitment to a "regional mission".

In the UK elsewhere, it has often been assumed that local or regional governance would provide a potent instrument to ensure that the region was kept in the forefront of the institution's commitments and that polytechnic development would proceed in keeping with what were seen as the perceived needs of the region.

Some European countries did not always assume, however, that regional commitment demanded regional governance. The French University institutes of technology founded through regional mission imposed through administrative notices, like fine tuning closer forms of central control - by contrast, the Norwegian district colleges after 1976 were brought under the aegis of county level regional boards which formed

Problems of toeing the binary line

The character and elements of the binary policy have to be carefully defined before its success or failure can be properly judged. For the decision in the mid-1960s not to create any more new universities but to extend to build up a strong polytechnic alternative had two important aspects. It aimed to maintain the status quo, the balance between universities and other institutions of higher education which prevailed at the time of the Robbins report; and it was also the clearest available statement about the balance and so the priorities of a semi-mass system of higher education.

However, three important qualifications have to be made about the binary policy. First, there always has been and always will be a binary when not whether to draw the line between higher, and further and school education. Second, the policy must be judged by its own standards not by the ambition of others to create, for instance, a new breed of "people's universities". Thirdly, a binary policy does not imply a binary system. Already in the 1960s higher education was strongly differentiated; it is even more diverse today both between and within sectors.

The "primary texts" of the binary policy are the two major speeches delivered by Anthony Crosland at Woolwich and Lancaster, the 1964 and 1972 White Papers, and the supporting administrative memoranda from the Department of Education and Science on the detailed implementation of the policy. From these

it is possible to derive five broad objectives of the policy, and then to measure these objectives against the actual record.

- Diversity - The binary policy has succeeded in freezing the 1962 balance between universities and the lance between universities and polytechnics which prevailed at the time of the Robbins report; and it was also the clearest available statement about the balance and so the priorities of a semi-mass system of higher education.
- Social control/accountability - This had two aspects. The more important was the Government's determination to keep a substantial part of higher education subject to detailed administrative control, the less important to maintain a significant local authority stake in higher education. Both have continued to be insisted upon, although their benefits have been frequently questioned.
- Social justice - This last objective of the policy, to meet the educational needs of a broader social constituency, was always the vaguest. It was implied rather than stated more explicitly in the White Papers. The polytechnics would cater more easily for under-achievers at school, mature students, first generation students, and students from working class homes. There is evidence that they do so in all cases to some degree, but perhaps not sufficiently to justify the creation of a separate sector.

Need to introduce a regional dimension

Mr David Morrell, registrar of the University of Strathclyde, gave a paper on a regional dimension in higher education in the United Kingdom. His summary appears below.

Longstanding regional consciousness, often based on sentiment and tradition, was subjected to severe tests of realism and rationality during the great debates on devolution. The steady increase in political control at the national level associated with the growing pressure for public accountability in modern democracies has led to a reaction against the indiscriminate impact of control or coordination at the level of scale of the larger nation state. This reaction is reflected in the policies of most political parties in the United Kingdom and elsewhere in the larger non-federal states of Europe.

The strengthening of political and other control over higher education at national level is particularly evident. Whether or not one can find any justification for the central direction of, for example, the number of students each university shall admit, it must be realized that such decisions seriously reduce the power of institutions to which they are sensitive.

Political decentralization is a live issue. Its relevance to higher education became evident during the devolution debates. Regionalization is a form of decentralization which ought to be explored.

Six years ago the people of Scotland had to give urgent consideration to the possibility of political devolution and to its implications for higher education. The first reaction of the universities was generally, although not unanimously, hostile. Being expressed about parochial isolation, reduced access to research funding and encroachments upon autonomy and upon academic freedom. There were some on the other hand who did not share these fears and who saw advantages in regional coherence and the promotion of regional diversity.

The general public reaction led by opinions expressed in other sectors of education seemed to consider that the universities were aloof and elitist and not sufficiently interested in their regional responsibilities.

The sharp tightening of control from London through the Government and the University Grants Committee upon autonomy and academic freedom in a new context and more mature consideration has modified the fears about isolation and research funding.

Scotland has a Council for Tertiary Education which has recently produced a report on post-secondary education in Scotland excluding the universities. The will to induce regional coherence is strong but the principal element is missing. The Scottish universities act as a group in many functional areas, as one vertical line which the universities to London could, with advantage, be weakened. Many would also agree that the horizontal lines between institutions of higher education and between them and their regions could, with advantage, be strengthened. Shared funding would have the advantage of both promoting accountability to three relevant defences and at the same time of defending autonomy and freedom against the ever increasing power of a single source of finance.

The dimension which is missing at present is the regional one. Should seen as any greater threat to autonomy and academic freedom than national funding. It also shows that research funding on a national

(federal) basis is fully compatible with regional funding for other purposes.

The two levels of Government funding appear to refine rather than reinforce the impact of politics upon higher education. Contraction of funds is placing the Canadian system under strain but so far it would seem that most of the stress is between the levels of government and not between the Government and universities.

Politicians and others, under pressure of public opinion, are taking the initiative in defining the future of the higher education system. The UGC procedure, for long the envy of the world, is showing the strain of the pressures now being put upon it. The academic bias of UGC membership and the confidential nature of its operations do not inspire public confidence.

When rough justice is dispersed on a national scale responsiveness and accountability at regional and local levels are significantly reduced. The Canadian example shows that political involvement at provincial level is not only practicable and acceptable but can also be beneficial.

Unfortunately perhaps, Britain is not a federal kingdom and is not easy to divide into well-balanced provinces. Scotland, as a natural region in scale of population and by inclination, is unique.

Regional stirrings occur from time to time but there must still be doubt as to whether regional consciousness and regional confidence are yet sufficient to indicate that a regional devolution or a regional provision within England is a realistic proposition.

The formalization of funding arrangements for the public sector of higher education and the consequent indirect involvement of local authorities has an obvious relevance to the regional argument. Unfortunately in this context political and administrative arguments have prevailed at the expense of academic considerations. National and local governments are not finding it easy to reallocate responsibility for post-school education between them in a rational way. The concept of locality, would it not be easier to find an answer in a new level of locality?

Higher education is being required to be seen to be more rational and accountable. The assumption that the process of change is best conducted by central Government arises from the lack of other credible agencies.

The federalist approach represents a principle of social organization which insists upon the diversity and complexity of social life and believes that the development of the human person normally requires a plurality of autonomous communities. The state is only one of the network of associations involved.

If the funding of universities (and possibly of other institutions of higher education) was divided into an additional channel at regional level a new and more closely evident of accountability would be introduced. Funding channels at national (capital, research, and some recurrent), regional (some recurrent) and local (fees) levels, would ensure democratic accountability at national and regional levels as well as accountability to student needs.

Many people would agree that the vertical lines which tie universities to London could, with advantage, be weakened. Many would also agree that the horizontal lines between institutions of higher education and between them and their regions could, with advantage, be strengthened. Shared funding would have the advantage of both promoting accountability to three relevant defences and at the same time of defending autonomy and freedom against the ever increasing power of a single source of finance.

Chairman: Lord Crowther-Hunt, rector of Exeter College, Oxford.
Convenor: Mr Michael Shattock, academic registrar, University of Warwick.
Authors of papers: Professor Bob Berdahl, department of education policy, planning and administration, University of Maryland; Mr John Bevan, secretary, National Advisory Body for Local Authority Higher Education; Professor Burton Clark, department of education, University of California; Lord Crowther-Hunt; Mr David Morrell, registrar, University of Strathclyde; Dr Guy Neave, European Institute of Education; Dr John Pratt, director, centre for Institutional Studies, North East London Polytechnic; Mr Peter Scott, editor, *The Times Higher Education Supplement*.
Other Participants: Mr John Amsal, centre for the study of higher education, University of Melbourne; Professor John Ashworth, vice-chancellor, University of Salford; Mr Christopher Hall, chairman, National Advisory Body for Local Authority Higher Education; Dr William Birch, director, Bristol Polytechnic; Dr Donald Bigh, director of teaching services, University of Exeter; Dr Clive Booth, deputy director, Plymouth Polytechnic; Mrs Betsy Beuter, programme administrator; Dr Jack Battersworth, vice-chancellor, University of Warwick; Mr Geoffrey Custon, secretary-general,

The participants
Committee of Vice-Chancellors and Principals: Dr Ray Cowell, deputy rector, Sunderland Polytechnic; Mr John Davies, assistant dean, Anglian Regional Management Centre; Mr Rowland Easton, admintor, Society for Research into Higher Education; Professor David Gardner, president, University of Ulster; Miss Harnett Greenaway, academic registrar, Bristol Polytechnic; Professor A. Habey, director, department of social and administrative studies, University of Oxford; Professor L. J. Hynes, department of chemistry, Open University; Mr Peter Holmes, senior inspector (higher education branch), Department of Education for Northern Ireland; Dr Edwin Kerr, chief officer, Council for National Academic Awards; Mr G. Klass, department of European studies and modern languages, University of Manchester Institute of Science and Technology; Professor Maurice Kogan, department of government, Brunel University; Dr Robert Lundy, director, Institute of employment research, University of Warwick; Council N. P. Lister, vice-chairman, Coventry Education Committee; Dr David MacDowall, director, Polytechnic of North London; Dr Graham Mould, department of politics, University of York; Professor Peter Moore, deputy principal, London

Business School; Mr Alfred Morris, deputy director, Polytechnic of the South Bank; Mr John O'Leary, *The Times Higher Education Supplement*; Mr Brian O'Reilly, director of education for Newcastle-upon-Tyne; Mr Christopher Price, MP; Professor Philip Reynolds, vice-chancellor, University of Lancaster; Professor John Sizer, department of management studies, Loughborough University; Mr Martin Stoll, education officer, National Union of Students; Mr John Thompson, under-secretary, Department of Education and Science; Dr Noel Thompson, under-secretary, Department of Education and Science; Mr Chris Tople, deputy education officer for Leeds; Professor Leslie Wagner, assistant secretary (academic), National Advisory Body for Local Authority Higher Education; Mr W. S. Walton, educational officer for higher education, Sheffield Education Department; Mr David Warren Piper, university teaching methods unit, London University Institute of Education, and chairman of the Society for Research into Higher Education; Mr Philip Whitehead, MP; Sir Bruce Williams, director, Technical Change Centre; Professor Gareth Williams, department of educational research, University of Lancaster, and director of the Leverhulme programme; Mrs Jennifer Wisler, assistant director (further education), Cheshire County Council.

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9. The staffing of the two bodies should be adequate to their respective remits and should be appointed independently of the DES, a majority being drawn from higher education itself.
10. Ways should be found either by the appointment of assessors on the committee/board or at the subject committee level of relating the legitimate interests of Government departments other than the DES with the work of UGC/NAB and with the institutions of higher education. This would ensure that institutions' research and training responsibilities took proper account of national needs.
11. The Secretary of State for Education should continue to appoint members of the UGC, but should publish the criteria governing the selection in advance and should take the necessary decision only after consultation with the various constituencies involved, including the consumers of higher education.
12. After a five year review period, the longer term prospect should be for an even closer working relationship between the UGC and NAB and that the two bodies and the DES

should accept this as their long term objective.

13. The UGC and NAB should include within their remit the entire higher education provision including direct grant and voluntary institutions.
14. In any future arrangements there should be a recognition and reflection of a continuing place for LEAs in tertiary education provisions.
15. The role of validating bodies in the future structure of higher education needs review as their role changes in respect to the increasingly autonomous institutions in the public sector.
16. An overarching advisory body should be established to offer strategic advice to the Secretary of State on matters relating to higher education including the division of funding. The new body should not interfere with the established powers and functions of the UGC and NAB.
17. Priority be given to the establishment of a higher education policy studies centre to serve as an independent source of advice for the DES and other Government departments as well as the UGC, NAB and the institutions of higher education themselves.

LEVERHULME SEMINAR: STRUCTURE AND GOVERNANCE IN HIGHER EDUCATION

American eye view of the British way

Professor Robert Berdahl of the University of Maryland gave a paper on Coordinating structures: the University Grants Committee and United States state coordinating agencies. His summary appears below.

Any summary of a 60 page paper is obviously going to over-simplify some complex issues. So be it. What follows, then, is a brief overview of the full paper which ideally would be consulted if any of the summary observations are found not convincing.

I distinguish the function of coordination from those of governance and cooperation. Coordination, as here defined, falls in the middle. Like governance and unlike cooperation, its powers rest on some legal basis. But like cooperation and unlike governance, these limited powers do not include the right to impose binding decisions throughout the institution's domain of management.

A further narrowing of focus concerns the emphasis on what are called issues of substantive autonomy rather than those of procedural autonomy or academic freedom. Coordinating structures are usually not involved in academic freedom issues, and it is here argued that substantial concerns - the what of academe - are more important as coordinating issues than procedural ones - the how of academe.

While the coordinating structure to be analysed in Britain is that of the University Grants Committee (the National Advisory Body over the public sector is too new for examination), in the United States the UGC parallel is found not at the national level which, in the American federal system, lacks direct jurisdiction over higher education, but at the state level. Here there are statewide boards of higher education in 47 states, and our analysis concerns the 27 boards which coordinate but not the 20 which combine coordination with direct powers of governance.

The state coordinating agencies have all been established in the past 40 years in response to the increasing size, cost, and complexity of higher education. A typical state board would be composed of 15 or so lay members appointed for staggered terms by the successive governors. Agency staff are normally drawn from higher education institutions, with top staff sometimes exempt from state civil service regulations.

Agency powers are sometimes advisory and sometimes regulatory (whether de facto or de jure), but usually include planning, budget and programme review. Although most coordinating boards perform most of these functions, the emphases on them have changed over the years. Originally most boards stressed their budget role, as often their very establishment was an effort to bring more coherence and equity to the then-existing political jungle relating to the state budget.

By the 1960s and early 1970s, however, the main emphasis moved to planning, first stressing long-range or master-planning and later shifting to shorter-range rolling or continuous tactical planning. With the enrolment and fiscal concerns of the 1970s has come an increased emphasis on programme evaluation - first of new academic programmes, and of some states more recently of existing programmes as well.

There has been considerable dissatisfaction with the coordinating board structures - from both sides. From the institutional side, complaints arise that the board is less a vigorous advocate for the needs of higher education and more a dispersed arm of state accountability. From the Government side came objections to the state board as a state-financed lobbying activity and disappointment that the board's lack of powers prevented it from acting as the means of centralizing accountability.

The UGC was established by a Treasury minute in 1919 as a means

of giving the Government confidential advice on the allocation of funds to the judicially-private universities, nearly all of which needed subsidies to function effectively, particularly after the impact of the First World War.

The UGC was originally composed of retired academics but by the Second World War the pace of activities required a change to practising academics. These members are chosen, however, not to represent their institution but their field of study and to provide a general regional balance. The chairmen have come from university ranks while the staff were seconded originally from the Treasury and later, after the UGC was transferred to the Department of Education and Science in 1963, mostly from that department.

In its early years of operation the UGC established a pattern of quinquennial grants and quinquennial visits to each university.

After the war decade, 1939-1949, during which the UGC and the universities were understandably preoccupied with the universities' role in the war, their recovery from its effects and their role in national recovery, the UGC turned in the late 1950s and 1960s to planning for the rapid expansion in student enrolments. The Robbins report in 1963 confirmed this and brought a Government reaction, among other items, of transferring the UGC from the Treasury to the Department of Education and Science.

Under pressures in the late 1960s and 1970s for exerting somewhat stronger leadership over the universities, the UGC began issuing memoranda of guidance about the broad guidelines within which the block grants were to be spent. Later preliminary memoranda of guidance were issued to help the universities formulate their priorities for their quinquennial planning.

Then the economic problems of the 1970s struck, with quinquennial grants abandoned, no automatic supplementation for inflation, the imposition of cash limits and even the 1981 exercise in selective retrenchment during which the UGC imposed markedly uneven cuts across the 45 or so institutions, cuts allegedly based on subject committee evaluations of elements in academic strengths.

Some elements in academe bitterly opposed this so-called programme rationalization with the need to dismiss tenured faculty. Proposals have been heard from these critics to make the UGC into a representative body and require it to operate in the open. The Government, however, has indicated its confidence in the UGC while agreeing that ministers next time around will assume more public responsibility for the broad outlines of policies being followed.

The US state systems, heavily driven by market forces in a context of enrolment decline and fiscal austerity, will come under heavier political and bureaucratic coordinating pressures to correct the possible abuses of institutions cutting corners to compete for survival. What will be needed for the necessary retrenchment and reallocation processes to enhance rather than threaten academic profession. In other words, the US state systems could well profit from the British practice of heavy reliance on coordinating modes wherein the academic profession plays a larger role.

The University Grants Committee, heavily influenced, as just noted, by the professoriate, will come under increasing political and bureaucratic coordinating pressures to avoid excessive rigidities in protecting the status quo. Thus, the traditional subject rationalization processes, so traumatic for the professional participants in the process, will need to be supplemented by a greater (though not primary) reliance on student choice and market forces. In this regard, the British system could well profit from US state systems' efforts to use the planning process to encourage rather than inhibit the operation of market forces.

Lacking a clear view ahead

Lord Crowther-Hunt, Rector of Exeter College, Oxford, gave a paper on policy making and political accountability in higher education. A summary appears below.

The first part of the paper was concerned with the inadequacy of forward planning within the Department of Education and Science and the inability of ministers to influence policy. Unless a minister came to the department with clear and well thought out plans, nothing much would happen, and even if he had clear plans, he would probably not remain in his post long enough to exercise real influence. Ministers were also overloaded with routine and representation work which left them no time for strategic thinking.

Planning in the DES was conducted in too much secrecy, as the Organization for Economic Co-operation and Development report on educational policy making in the United Kingdom published in 1975 had charged. As a result policy was less likely to be well understood by those outside the department, and goals and priorities once established might continue to be taken for granted and escape regular scrutiny of their continued relevance.

DES planning was also too negative and inwardly-directed. It saw its role as the identification of existing trends, even when these trends were themselves subject to strong influence from Government policy. Again the result was that too little effort was made to question existing goals and priorities and to identify new ones.

Planning within the department was also too purely orientated to education and perspectives, and made too little effort to consider educational policies within the context of



Lord Crowther-Hunt: "Ministers overloaded"

their relationship with broader Government objectives. This gave the impression that the DES was not sufficiently concerned about the role of education in meeting the needs of a modern industrial society.

To improve the situation the DES's planning machinery needed to be reformed, and its attitude to planning amended to bring in a more positive attitude to the setting of priorities rather than the passive identification of existing trends. Decision making in the department needed to be decentralized to free ministers to concentrate on major long term policies, ministers needed to stay in office longer, and political parties needed to prepare detailed blueprints for their policies.

The second part of the paper concentrated on political accountability in the formulation and implementation of higher education policy.

Bodies such as the University Grants Committee and the National Advisory Board must not have their members nominated by the Secretary of State for Education but by the various interest groups. Their advice to Government must be public. And they must be accountable for their decisions to the representatives of the people.

Two models of government were suggested in the paper. The first was for rapid decentralization, with semi-sovereign parliaments for Scotland and Wales and regional governments in England to which substantial powers of administration would have been devolved. Under such a scheme there would be no need for UGC or a NAB, because higher education policy would become the responsibility of these new regional administrations.

Certain institutions - Oxford, Cambridge, London, and the Open University - might need to be exempted from this general devolution. Provided their number was small they could be funded directly by the DES. But in general national policy for higher education would be confined to the setting of broad goals and priorities.

The second model was for greater centralization. Effective power of decisions would be concentrated in the hands of the central Government, with the UGC and NAB reduced to executive bodies. Because a lower value would be placed on local government, the polytechnics and colleges would be removed from local authority control and come directly under the "command" of NAB or any successor public sector committee. There would also need to be a national advisory council for higher education, but it would be advisory only.

Professor Burton Clark of the University of California at Los Angeles gave a paper on governing the complex system. His summary appears below.

This paper emphasizes differences between higher education and other sectors of society. It explores unique features of the higher education system as the basis for understanding its complex problems of governance.

Central to the uniqueness of the system is the committee of specialist groups to particular bundles of knowledge - "thought styles" supporting different "thought styles". These disciplines (and professional virtues) stretch across individual universities and colleges, serving as potent sources of membership, status, and authority that turn such operating units into departments, chairs, and institutes into authoritative fragmentary forces. Authoritativeness locates way down the line, even in the hands of small sub-cultures within departments and in the individual who locally becomes a one-of-a-kind expert.

The higher education system is a huge matrix of disciplines and enterprises that compromises the authority of institutions and the formal levels of coordination. The increasing complexity of intersects in that matrix becomes the ground for non-uniformity in policy and governance.

On the symbolic side of the organization of the system, there are a large number of legitimate insistent beliefs that contradict one another and increase uncertainty. Academics are influenced by the beliefs of their disciplines, the institution to which they belong (and usually some major part of it), the academic profession over all, and even the national system in its totality. And various primary social values must be accommodated, particularly justice, competence, liberty and loyalty - the latter often expressing itself in the twentieth century as "virtuocracy", a particularly intense form of regime loyalty that centres on efforts by the state to morally transform individuals and society.

Confusion must necessarily follow upon efforts to effect the first three and especially all four of these values, since they require antithetical forms and procedures; open doors,

Grasping the complexities of the matrix

but selection at the outset; a parity of institutions, but centres of excellence; maximum freedom of choice, but standards of student passage and faculty performance; accountability but institutional initiative. The basic sets of values are themselves bundles of contradictory impulses: equality becomes equalities, relevance becomes relevances. Again, system organization becomes compromise written large as we expect more of higher education and work harder to embody these and other values. The normative side of academic is as complex and naturally confused as the structural side.

From work and belief much follows for governance. The system increasingly contains multiple forms of authority: those that are discipline-rooted, primarily personal and collegial forms of dominance that meld together in various guild-like compounds; those that are enterprise-based, notably trusteeship in Anglo-Saxon systems and institutional bureaucracy that grows everywhere; and those that are system-based, where power attaches to central administrative staff, political figures in the executive and legislature, and academic oligarchs.

The system is integrated by market-like interactions and linkages as well as the bureaucratic, political, and oligarchic means. There is always some consumer market, some internal labour market operating in a highly segmented fashion, and some institutional market in which prestige is an important coin. All these major forms are necessary, with governance becoming a question of balance and compensation. For example the fail-lure or lack of the market induce state intervention, "state failure" causes participants to seek market-like interactions. Quite properly, the means of coordination become ever more various, even functionally redundant.

If the internal structure of the system must support inordinate variety in task and outlook, then the differentiation of sectors and levels becomes crucial. Diverse structure becomes more accommodating than simple structure. A moderate degree of institutional hierarchy hooks groups and institutional self-interest to charisms of sector, subsector, and institutional differences gives personnel and students greater choice and allows weak values and groups some room in which to operate. Loose coupling within the system as a whole aids greatly to its flexibility and innovativeness. Justice is thereby disaggregated, to specific institutions and programmes that promote different competencies and in the aggregate widen the play of liberty.

Amid such complexity, long-run effectiveness must necessarily centre on the quality of professional recruitment and socialization wherein, in place of top-down oversight, academics are held accountable to one another and to norms of objectivity and fairness.

All these complexities suggest that "federal" structures are more functional than "unitary" ones for the effectiveness and progress of higher education. And a bottom-up logic can be put starkly in the form of "commandments" for key governors, particularly central civil servants. They should conceive of much authoritativeness as properly located units; understand that the discipline is the equal of the enterprise as a primary form of academic organization and a centre of production; seek to divide power at each level of coordination as well as across levels and expect to "coordinate" by differentiating sectors, institutions, and programmes; build and espouse doctrines that give aid and comfort to variety and ambiguity; take the support of institutional initiative as a primary long-run task and responsibility; and, similarly, support operational initiative. Much self-determination at the institutional and operational levels becomes a functional requirement.

The question for central figures next Monday morning then becomes: how can we liberate initiative and promote effort at the institutional and operating levels? From such efforts the system elaborates itself, with "governance" steering just a little.

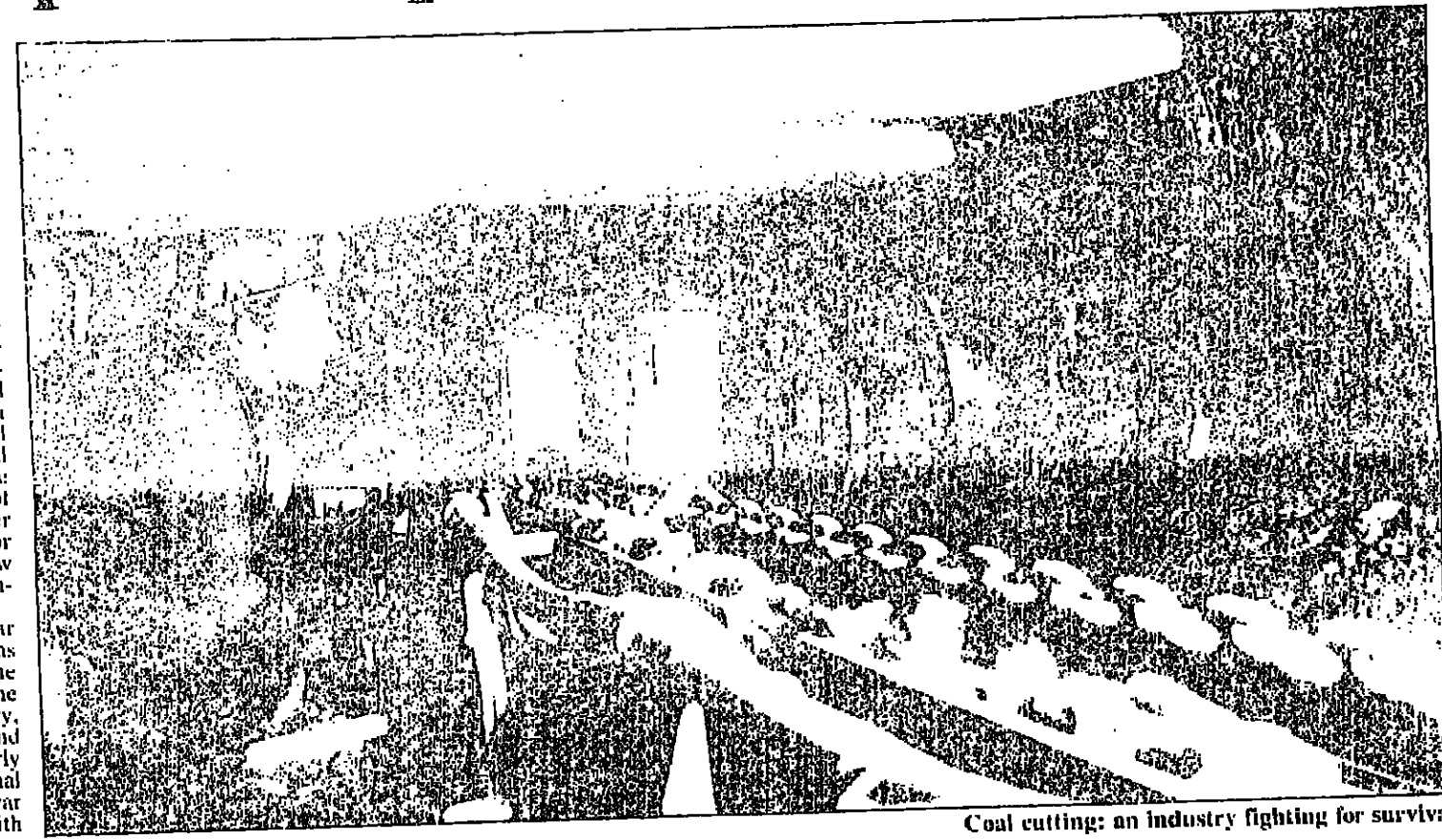
Too exposed to political pressure?

Peter R. Odell argues that Britain and western Europe are too dependent on oil and gas for their energy

For almost two hundred years after the mid eighteenth century the economic development of Britain and most of the rest of western Europe was closely related to the exploitation of the continent's large coal resources. Over the decades production was achieved from deeper and deeper reserves and the output was applied in a widening range of uses. Until the Second World War the coal-mining areas remained the principal centres of industry and, in addition to its direct use in manufacturing, indigenous coal heated most of the continent's homes, supplied motive power for the railways, was used almost exclusively for electricity production, and provided the raw material for the west European chemical industry.

In the aftermath of the Second World War most of western Europe, including Britain, was short of energy but at the time the solution to the problem was more or less thought to lie in the rehabilitation of the war scarred coal industry, the massive expansion of which was planned and projected. Thus, in the late 1940s and the early 1950s the struggle to secure the additional quantities of energy that European post-war recovery demanded was largely concerned with expanding indigenous coal production. This was true not only for Britain, where the newly nationalized industry sought to expand output by almost a third of 240 million tons per year, but also in West Germany with its equally important coal industry, and in Belgium, France, the Netherlands and other countries where coal resources offered the prospects for expanded levels of production. Coal imports, together with the fiscal and other incentives designed to enhance the flow of crude oil and oil products to Britain and the rest of Europe at that time, were seen as essentially short-term expedients by the policy makers. They would help out temporarily while the European coal industry was put back into shape through a massive programme of investment and the rejuvenation of the aging mining force of the immediate post-war period.

Within a few years, however, from about 1955, but with a brief respite at the time of the first Arab/Israeli conflict in 1957, the coal industry in Europe was fighting for its survival. This fight was not in the context of a declining demand for energy, but rather in a period of a rapidly increasing use of energy, in an expanding west European economy which was becoming more and more energy intensive, under the impact of expanded industrialization, electrification and motorization - and of rising standards of living. It was, indeed, the too rapid rate of growth in energy use which caused the crisis for coal. British and other European coal producers were unable to respond to the energy demands of users whose confidence in the coal industry was therefore undermined - and left them more than willing to respond to the growing efforts of an increasing number of oil companies to supply



Coal cutting: an industry fighting for survival

then with the energy they needed. The oil industry was thus able to break through cost barriers after cost barrier by securing economies of scale in transport, refining and distribution and, even more important, by turning to the exclusive use of low and decreasing price crude oil from the prolific fields of the Middle East and North Africa. (The "real" price of Saudi Arabian light crude oil, for example, fell by over 60 per cent between 1950 and 1970.) The seemingly limitless quantities of oil imports available at prices against which most indigenous coal production could not compete (given especially the rising cost of labour in an industry in which wages accounted for over half of total costs), exacerbated the difficulties of the British and the other European coal industries. By the end of the 1960s production was little more than half the level it had been at the beginning of the decade - and it was still falling.

The decline in coal production was not, of course, a function of the depletion of the continent's coal resources - nor even of a decline in the accessibility of known reserves of coal (except in a few special cases, such as Durham coking coal and South Wales anthracite). Throughout most of western Europe's coalfields, pits were closed and production capacity was reduced in an effort to bring supply into balance with declining demand; and a number of coalfields - including even some of the more efficient ones, such as the Dutch Lamburg field - were closed down altogether. The consequential flooding of the unproduced reserves in these fields over being available for production. The clear inability to produce west Europe's coal resources at a level of costs which enabled them to compete for markets with oil products (except for power generation in the vicinity of the continent's lowest cost coalfields, such as those of the east Midlands and south Yorkshire), and the apparent absence of any other plentiful indigenous sources of energy led to the declaration of western Europe as an energy-poor region. Its rapidly growing energy needs were destined, it was generally thought, to become dependent upon the willingness of the world's 12 oil rich countries, and the 20 or so international oil companies responsible for the exploitation of those countries' oil resources, to continue to supply western Europe with increasing volumes of crude oil. By 1972 the flow of oil into the continent exceeded 600 million tons (it had been less than 10 per cent of this volume only twenty years earlier) and the then generally accepted view was that oil import needs would continue to rise - to over 1,000 million tons by 1980 and to 2,500 million tons by the end of the century.

A set of traumatic events since 1972 have, of course, entirely undermined those energy sector diagnoses and prognoses with both supply and demand side components involved in the now radically changed outlook. The pre-1973 expectation that high growth rates in energy use would persist involved dimensions that any discoveries of resources in western Europe itself appeared to offer prospects for little more than a modest amelioration in the rate of growth in the region's imports. A number of oil, and natural gas, discoveries which had been made in northern Germany, south-west France and northern Italy somewhat earlier were seen in this context. They were nothing more than interesting, locally significant phenomena (though it should be

noted in passing that Po Valley gas had a powerful positive impact on the North Italian industrialization process in the 1960s). A new gas discovery in the Dutch province of Groningen was, at first, presented in much the same way, but its subsequent (mid-1960's) declaration as one of the non-communist world's largest accumulations of gas (containing over 2,500 million tons of coal equivalent) clearly affected western Europe's energy resources. The size of the discovery and its other attributes indicated a greater potential for hydrocarbon resources throughout the sedimentary areas of north-west Europe and particularly in the North Sea province in which, geologically, the Groningen gasfield was located at the southern extremity.

Legal agreements between the surrounding countries over the division of the rights to the mineral resources under the North Sea created conditions in which the exploration, however, and gas could begin. Technologically, however, the North Sea was a "frontier region" for oil and gas exploitation so that progress was, at first, necessarily slow and tentative. Nevertheless, by the time of the oil "crisis" in 1973, it was already clear that the North Sea was likely to be an important oil and gas province by international standards - with all its sectors, but especially those of Britain and Norway, proving to be prolific to an encouraging extent. The much higher price of oil in the aftermath of the crisis stimulated its exploration and exploitation. To date, only a little over 20 years since the discovery of the Groningen gasfield, the North Sea oil and gas province is proven as one of the world's largest. There is one other field (in Norwegian waters) which is at least as big as the Groningen gas field; a dozen other giant fields (with over 500 million barrels of oil and/or gas equivalent) have been discovered; and there are 300 oil and/or gas discoveries of which more than 50 are already producing or being developed for production - mainly in the British sector, where developments have proceeded faster than elsewhere.

Major petrolierous provinces such as the North Sea do not reveal their ultimate "secrets" on eventual reserves and potential production levels, and the longevity of production, in the first 20 years of exploration and exploitation. The "life" of such a province extends over many decades during which time it is the process of the exploitation of the oil and gas - that is, the production, or the depletion as it is often termed, of the discovered and declared reserves - which ensures the continuation of discoveries over a long period. In such a "positive" approach to the challenges offered by a major province the nuances of the complex geology and the characteristics of the varying types of reservoirs are gradually sorted out so that opportunities for reappraising the reserves and production potential are successively opened up more or less continuously.

Unhappily, this phenomenon is not appreciated in western Europe where unfamiliarity with the industry, and a firmly held belief in the concept of western Europe as poor in energy - coupled with inappropriate styles of government intervention and fiscal policies - have inhibited the continuity of the discovery and the production process and meant that the province's reserves potential and its production capabilities have been under-declared. For example, the constraints of successive Dutch governments on



Drilling for oil: too much too quickly?

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the expansion of markets for its natural gas has inhibited discovery and development, both onshore and off-shore. British North Sea gas reserves which have been discovered remain unexploited because of British Gas's marketing policies and because the companies which have found the gas have been denied a price for which justifies their investing in its exploitation. Denmark failed to establish an appropriate system for the effective exploration and exploitation of its sector of the North Sea. And Norway, with the most prolific part of the North Sea province, has positively striven to enforce policies which hold back the discovery and development process.

Nevertheless, within the context of the virtual failure of energy use in general in western Europe to expand since 1973; and, in particular, with the sharp fall since then in the use of oil (use in 1982 will be little more than three quarters of use in 1972), even the relatively modest exploitation to date of North Sea oil and gas reserves has enabled them to meet some 25 per cent of total energy use in western Europe. Indeed, their contribution is now almost 50 per cent greater than that of indigenous European coal.

Norway, with its small hydrocarbon energy needs, is a major exporter of both oil and natural gas. The Netherlands' energy economy is dominated by the use of its own natural gas and it exports as much gas as it uses and so earns enough to pay for its oil and coal imports. The UK is more than self-sufficient in oil and it also produces most of the natural gas which it consumes. Moreover each of these countries is capable of expanding its energy production for at least the rest of the century. In each case the country's oil and/or gas reserves already proven offer such a potential (though this is not yet realized because of the policies of constraints which have been imposed), and beyond this there is scope for further expansion based on probable, possible, and as yet undiscovered reserves. The rapidly evolving natural gas reserves potential of the three countries - and particularly of Norway - are most important in this respect. By the mid-1980s, even after allowing for an increased use of gas in the meantime, their proven and probable reserves of natural gas will exceed 11,000 x 10⁹ cubic metres to give a reserves to production ratio (measured against the higher level of production planned for 1985) of more than 50 years.

It is worth noting by way of contrast that the United States has for years worked with a gas reserves to production ratio of about 10 years. Nevertheless, it continues to face the future with equanimity as far as its annual consumption of some three times as much gas as western Europe is concerned. In the US long experience has demonstrated the validity of the concept of "undiscovered but discoverable reserves", when taking decisions on appropriate future production levels. In Western Europe the concept is little known, and even less accepted, as an appropriate basis for oil and gas supply planning. Instead, production plans for periods as long as 30 years are based on proven reserves only. As a result, the production process is constrained; and as this process is the main means whereby continuity in discovering new reserves in maturing provinces can be ensured, so the reserves' discovery process is also constrained. Thus, the contribution of indigenous oil and gas to the energy needs of Britain and the rest of western Europe is being kept, and will continue to be held, below the level that might otherwise be achieved.

Ironically, this failure of western Europe properly to exploit its hydrocarbon resources is usually claimed to be an achievement! It is presented as a willingness to curb the "greed" of present day potential users of the resources in favour of tomorrow's claimants. Superficially attractive though this presentation may appear to be (a "conservationist" approach in a spirit of responsibility to the needs of future generations), its validity is undermined by the fact that the failure to encourage or to allow production today necessarily implies a failure to find new reserves. Commercial interest in finding oil and gas is diminished and the prospects for expanding production atrophy as a consequence. The development process is slowed down - or even halted - so that an oil and gas province such as the North Sea, with undiscovered but discoverable resources, is in danger of being prematurely abandoned: to the cost of all concerned, including those future generations whose interests in the resources the conservationists claim to be seeking to protect.

The hesitancy in developing British oil and gas resources can also be related to the post-1973 situation for the coal industry. Following its severe setback in the period from the late 1950s to the early 1970s, the coal industry has enjoyed something of a resurgence - in the aftermath of the oil price rises and the enhanced fears over the security of energy supplies. As a result of these factors the coal industry was able to lay claim to special treatment (in terms, for example, of guaranteed markets for its output and of access to capital for new projects). The certain availability of coal reserves large enough to sustain a much higher level of production indefinitely may be a persuasive argument for such favourable treatment. In spite of the following considerations; first, the real resource costs involved in exploiting new British coal reserves are much greater than those involved in the exploitation of even high-cost offshore oil and gas; and second, other

OECD countries (notably Canada, the United States and Australia), plus other nations of the non-communist world (South Africa, Colombia, Indonesia), have vast quantities of inherently lower cost coal available, or potentially available, for export to coal consuming countries. The growing competition between these alternative suppliers, plus the economies of scale yet to be achieved in coal production and transport, is, moreover, likely to keep real prices stable, or even to bring them down.

In this context the continued upward pressure - and on most other western European - coal output seems likely to make the large-scale redevelopment of the continent's extensive indigenous coal resources a relatively "bad buy" for the consumers involved. Indeed, most of Britain's and Europe's large remaining resources of deep coal can, realistically, still be viewed only as a potential resource, with the prospects for its ultimate use depending on the development of a successful method for its underground gasification. This is an early twenty-first century prospect at best, when the energy released by the process could become useful as a supplement to indigenous natural gas production. In the meantime, the protection extended to the traditional coal industry - in other countries of western Europe as in Britain - serves to inhibit oil and gas resources' exploitation. It could, incidentally, also constrain the efforts to achieve the technological breakthrough to underground gasification - as the opportunity given by protection to expand conventional coal production limits both the motivation to undertake underground gasification research and development, and the provision of the resources necessary for eventual success.

To return, however, to the oil and gas resources themselves: and to a number of institutional and fiscal considerations which adversely affect their development in Britain and the rest of Europe. Institutionally, the high degree of centralized ownership and/or control over the resources is an inhibiting factor. Indeed, the national ownership of mineral rights virtually eliminates the opportunity and the motivation for the exploitation of all but the largest accumulations of oil and gas: in a situation in which much of the continent's remaining oil and

gas resources are likely to be found in small to very small fields. As neither individual landowners, nor local communities secure much, if anything, by way of direct financial return from the production of oil and gas under "their" land, the inconvenience and/or pollution which is necessarily involved in such activities stimulates local opposition to any development proposals which may be made. In the context of the complex and multi-level planning laws and regulations which apply in most European countries, the ability of such opposition to cause developments to be delayed or even abandoned is high.

As a corollary to this situation, however, there is an even more serious institutional constraint to the exploitation of small scale oil and gas resources. This is the near absence of one of the main elements to be found in the North American oil and gas industry, namely the existence of a very large number of small producing companies constituting the "cottage industry" element in the industry. It is this element which is specifically interested in, and orientated to, the exploration for, and the exploitation of, small occurrences of oil and gas. The large oil and gas entities which are dominant in Europe - either state owned, or the subsidiaries of multi-national oil corporations - are neither organized for, nor particularly interested in, small operations and thus the exploitation of these oil and gas resources is going by default - to a large degree in Britain, and even more so in most of the rest of the continent.

Meanwhile, at the other "end" of the industry fiscal considerations are paramount in decision taking on oil and gas developments. "Big" companies and "big" government struggle over the division of the high levels of economic rent (supernormal profits) that emerge from the combination of high price oil (and gas) and the essentially low cost attributes of exploiting large oil and gas fields. In the early days of the agreements on production concessions to the oil companies from the inexperienced western European governments, the latter extended conditions which, for very prolific oil and gas occurrences, proved eminently profitable to the former - particularly as the developments coincided with a period of rapidly rising oil prices. From the "rip off" of the early days, however, the pendulum

has now swung to the other extreme and most western European governments, including Britain's, have now enforced concessionary regulations and fiscal conditions which are counter-productive. They not only absorb the economic rent, but often diminish the real rate of return to levels which most oil companies find unattractive given their alternative opportunities for investment in many other parts of the world. As a result even the "macro" end of the "upstream" oil industry framework - is in danger of being undermined. This means: first, that fields which have been developed will be closed down before they are fully depleted as continued production will not be profitable; second, that other fields which have been discovered will not be found to be worth developing; and third, that much of the rest of the undiscovered but discoverable oil and gas will remain unexploited, as exploration in western Europe becomes an unrewarding activity.

This situation has not been reached, but the dangers from the too severe concession regulations and fiscal conditions to the effective exploitation of British and other European oil and gas resources are growing. Paradoxically, this is happening while the too high share of the revenues which is being achieved by governments from oil and gas production is used, in part, to subsidize and/or protect the production of inherently higher cost energy!

Moreover, these dangers to the exploitation of the continent's oil and gas resources from internal institutional and fiscal conditions are now being exacerbated by the evolving international oil and gas situation, the effects of which are important for western Europe as the largest market for internationally traded oil and gas.

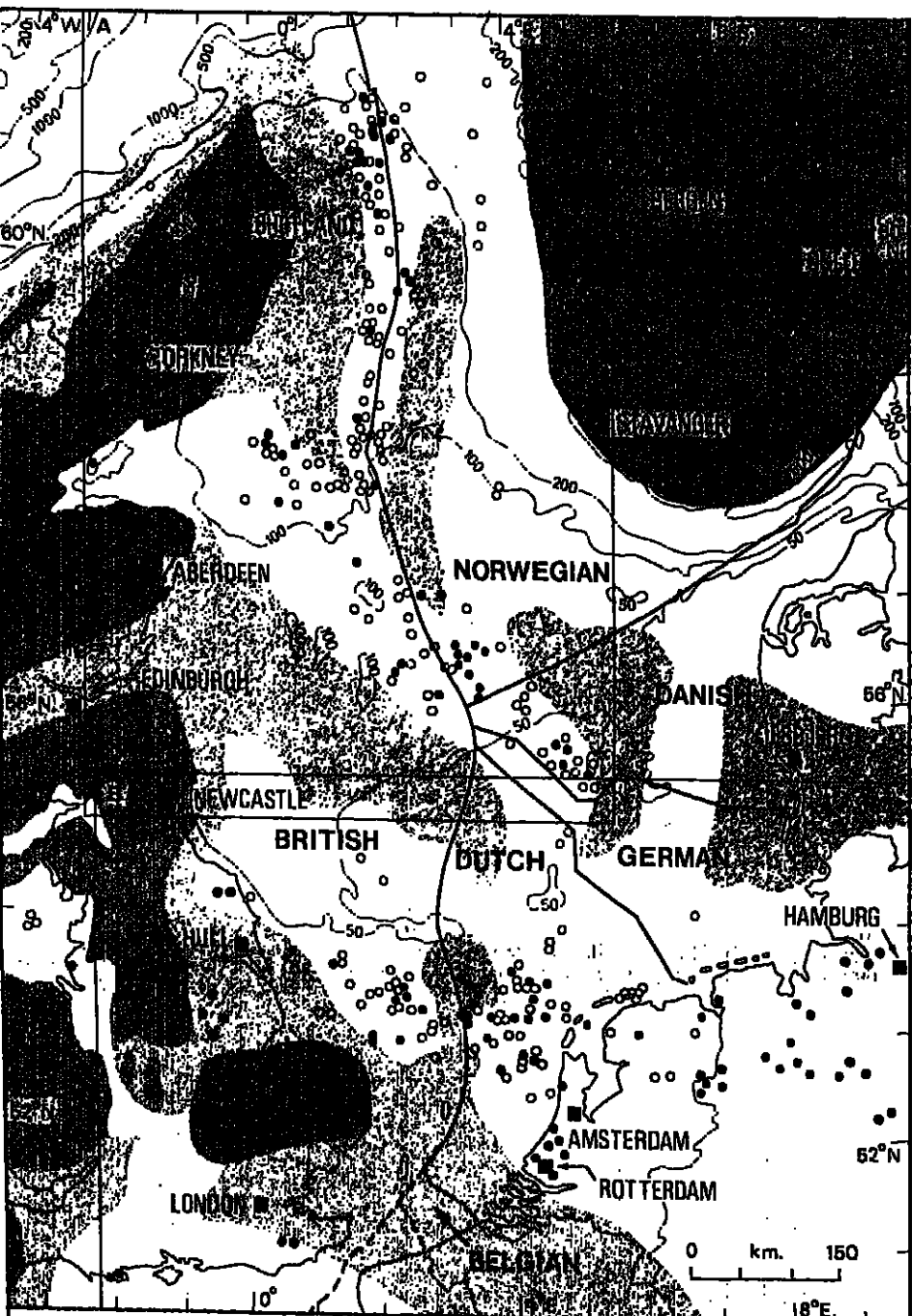
The international oil companies, which are responsible for most of the oil and gas production which has been developed in western Europe, were, of course, also responsible in the 1950s and the 1960s for meeting the continent's oil import requirements, and for the creation of both the physical and the organizational infrastructure necessary to enable that development to go ahead. In spite of the many radical changes in the international oil system since 1973, those companies remain heavily committed to Europe in this way - though now often in cooperation with individual oil exporting countries, with many of which they have long term agreements on supply, refining, transport and even marketing.

The companies thus have to give first priority in their European markets to the crude oil and oil products involved in these agreements with the OPEC countries concerned. In the expanding west European oil market that the companies hitherto envisaged such imports would not have posed any problems for the relatively limited volumes of indigenous oil production in western Europe, generally, and specifically in the hitherto largest oil importing countries (West Germany, France and Italy), prior commitments made to use oil from the exporting countries necessarily implies a reduced interest in the continent's own resources, with a consequential adverse effect not only on the markets for oil already discovered, but also on the propensity to invest in the search for new reserves.

In essence one is once again reminded - as in the case of indigenous coal - that the mere existence of accessible, physical resources of energy is no guarantee that they will be exploited. Both institutional and commercial considerations are involved in their becoming, or their ceasing to be, economic resources. Neither Britain specifically, nor the EEC generally, have yet thought it appropriate to talk about, let alone to create institutional and other arrangements which ensure the exploitation of the region's oil resources. The same is true for natural gas, in respect of which western European countries seem better able to achieve agreements on guaranteeing markets for imports from the Soviet Union and elsewhere than on appropriate steps to ensure an increasing production and use of their own reserves!

Both the UK in particular, and western Europe in general, remain convinced that oil and gas are so inherently scarce that any resources found within the continent must, *ipso facto*, be so attractive to produce that priority needs to be given to placing restraints on their too rapid rate of depletion. Such a view was never correct, except in the period of the temporary politically inspired constraints on oil supplies in the early and late 1970s. It is no longer correct even in that way, so that the prospect now is for some part of Britain's and Europe's technologically and economically recoverable oil and gas resources to remain unexploited. This not only has economic consequences for the countries concerned in the short term. It is also a danger to the viability of western Europe's longer-term prospects, as a result of the unnecessarily high exposure to economic and political pressures from countries which thus gain the opportunity to make western Europe dependent on their oil and gas supplies - in circumstances in which the continent's own resources are capable of meeting most of the needs. It is Britain, the best endowed of all the major west European countries with oil and gas resources, which has most to lose from the dangers of inappropriate energy resources exploitation policies - and the most to gain from radical changes in those policies.

The author is director of the Centre for International Energy Studies, Erasmus University, Rotterdam.



The prolific North Sea oil and gas province contains western Europe's lowest cost energy resources.

An open mind about Moonies

I have recently returned from a conference sponsored by the Unification Church, the "Moonies". Two hundred and fifty participants from every continent were flown to Portugal, to a large hotel in Cascais, near Lisbon. There the diligent subjected themselves for seven days at six hours a day to discussion about the theology of the Unification Church and its implications for the way of life of the Moonies.

Not all were equally diligent, of course. Some attended everything (religiously?), others found themselves too engrossed in the debates to overcome the heat to attend at all. On the whole, attendance at the sessions seemed good, although I doubt if any converts to Unificationism were made - and most of those I asked seemed sceptical as ever about Moonie theology at the end - yet over the week there was a clear rise in the respect and warmth of feeling displayed by some participants towards the sponsors. How far this was based on consideration of the ideas and practices of the Moonies, and how far on the anticipation of invitations to Jamaica, Seoul, Tenerife and Chicago, must remain a matter of surmise.

I suspect that few of those invited can have regretted coming. Moreover, though few will have grown in their acceptance of Moonie theology, and reflection on behalf of the church, or the sessions seemed good, although I doubt if any converts to Unificationism were made - and most of those I asked seemed sceptical as ever about Moonie theology at the end - yet over the week there was a clear rise in the respect and warmth of feeling displayed by some participants towards the sponsors. How far this was based on consideration of the ideas and practices of the Moonies, and how far on the anticipation of invitations to Jamaica, Seoul, Tenerife and Chicago, must remain a matter of surmise.

Two questions are closely intertwined. One's view about the motives of the Unification Church must colour one's conclusion as to whether reputable scholars should participate in conferences which it sponsors. Why should scholars not participate? The church's critics indict the Unification Church on numerous grounds. The Rev Sun Myung Moon is seen as *inter alia*: a rabid right-wing defender of Nixon and the South Korean dictatorship; and a blasphemous denier of the complete victory of Jesus through the crucifixion, who elevates himself as a second Christ, who bids fair to succeed where Jesus failed. Unlike Jesus, however, his critics point out that Moon does not live in poverty among the socially outcast. Rather, he lives in a mansion and is driven to engagements in limousines. Thus Moon is said to live handsomely on the exploitation of his gullible followers. Moreover, his critics point out, he lives in considerable affluence from this exploitation.

The charge of exploitation leads to the claim that the Unification Church raises money by dubious means: keeping its youthful followers on the road for months on end in "mobile fund-raising teams", which raise money on the streets in return for flowers, candles or candy. Members of such teams are known to have been able to raise up to \$150 a day by keeping at it for up to 18 hours at a stretch, sleeping in the team van or on the floor of a motel room to which several of them would be crammed, and often subsisting on a rather inadequate diet and little sleep.

Then there are the church's businesses, fishing for example, which compete "unfairly" with established operators because of the low cost labour of members gladly donating their work at a return well below union, or even market, rates. Among the more controversial of these businesses is a factory in Korea which manufactures rifles - albeit sporting guns as I understand it - and, more important, parts for automatic weapons, having a much more sinister purpose.

In its street fundraising as in its evangelism, the Unification Church

Roy Wallis says scholars should not be criticized for accepting the Rev Moon's hospitality

is accused of deception, of representing itself as something with a more neutral image. Members have been accused of lying that they were engaged on behalf of the church, or that they were Moonies. It is said that the church breaks up families. And above all, Moon - despite a large Jewish contingent among his leadership and following - is accused of anti-semitism.

It would not be possible to answer all these charges here. To do so properly would need an article or two devoted to the subject. Moreover, I do not know that I have the answers to all of them. So much more culpable than, it might be said, the attendance at a Moon sponsored conference. To take the hospitality of someone of such dubious reputation sufficiently proclaims the lack of integrity of those willing to attend, or a lack of ethical discrimination and objectiveness. At the least it impugns the judgment of those who are willing to involve themselves with such a movement, their objectivity having been subverted by the hospitality they have received.

Clearly I do not accept these condemnations, otherwise I should not be drawing attention to myself in this fashion. Well then, what justification can be offered? Even the Unification Church's severest critics will doubtless admit that virtually every religious movement has been born in controversy. Christianity had a leader who was held to be the Messiah, some of whose followers attacked the forces of law and order with violence, or travelled from one community to another causing discussion and strife. Its founder was reputed to be a charlatan and to associate with people of dubious reputation. Its subsequent leaders lived well. Its founder broke up families, seducing sons and daughters from their parents and careers to follow a life of poverty and ridicule. It proclaimed a message of world domination ("Every knee shall bow, every tongue proclaim, that Jesus Christ is Lord"). What would the Daily Mail and other historically naive crusaders against the Moonies have made of first century Christianity I wonder?

A moment's reflection will show there is not much of which the Moonies have been accused that could not equally well be laid at the door of the first century Christianity or its subsequent developments. Simon Peter practised deception (along with such Old Testament worthies as Abraham and Jacob) and he also offered violence to a representative of the law. Christ broke up families - or at least he said those who were not willing to abandon their families and follow him were not worthy of him. The Pope and the Archbishop of Canterbury live very well off the hard work of their followers. And so on.

This is not to say these things are right, only that they must be seen in context; a practice not common among journalists and critics committed to some other world view. The Unification Church actually does believe in unification, which explains its willingness to bring together diverse people to debate issues of religion and values. Of course, it hopes those who accept its hospitality will leave with a better impression of the church. Why should it not? But if these public relations exercises, then some PR firm should show the Moonies that they get a pretty poor return for the money they spend on intellectuals, scientists and evangelicals.

The Moonies believe if you bring together the leading thinkers in science and religion, they will come to see the unity underlying their differences, the divine principle beneath it all. They may well be - indeed they are almost certainly - wrong about

this, but the aim does not seem so very immoral. And even if these non-believers learn no more than that not all Moonies have glazed eyes; that some are critical of features of their church; that some of the more fanciful rumours have little foundation, then something has surely been gained by the church and by its previously ill-informed guests. So there are gains, albeit scarcely cost-effective gains, for the Unification Church, but what of the participants? What justifies their attendance?

Unlike many new religions, the Unification Church is prepared to engage with, even listen to, outsiders. They have to learn how to make themselves understood, and they are prepared to invest time and financial resources in listening even to firmly opposed viewpoints if their holders will only do them the courtesy of listening to the Unification point of view in return. That surely has to be better than those new religions which persecute anyone whose voice is raised against them (and we need not look a hundred miles from the Tottenham Court Road to find examples of that strategy).

It is said, of course, that to attend a Moonie conference somehow lends credibility or legitimacy to the church and its activities. I have not seen this to be the case. The church does not publish the names of its guests as any form of endorsement, to my knowledge. Indeed it is its critics who are most active in publicising the names of academics and others who attend.

To refuse to talk with the church is to cut off the possibility of influencing its actions, of persuading it that its methods might be amended, and thus to push it into a position of isolation, and increase its hostility to a world which wants it to do some thing differently if it is to exist at all. As a student of new religious movements, including the Unification Church for some years, I am convinced that it is far from being as pernicious as it is portrayed by the Daily Mail. This is not to say that it has no faults, only that relatively few among us maintain such purity of life and company as to be altogether without sin. The Moonies are prepared to give unbelievers like me, and many overt critics, an opportunity to assess new evidence about itself, and to listen to us - our doubts and criticisms - in return. As a scholar, I believe there is merit in the free exchange of ideas, and there do not seem to me to be many new religious or political organizations willing to open up to public scrutiny to the same extent as the Moonies. I therefore applaud the endeavour, and am willing to participate in it.

Before it is asked in subsequent correspondence, however, let me answer the question of whether the answer is a limit to my willingness to accept hospitality from religious or political bodies in my pursuit of knowledge? There are such limits, but they exist. I would not be willing to exchange my participation for editorial control over what I subsequently said or wrote. Nor would I accept hospitality - no matter how lavish - if this entailed my name being used as endorsement of the group in question (unless I did actually happen to endorse it). Nor, indeed, would I attend a conference organized by a group which appeared to be interested solely in presenting a whitewashed version of itself when its methods or purposes were largely to some other world view.

The Unification Church actually does believe in unification, which explains its willingness to bring together diverse people to debate issues of religion and values. Of course, it hopes those who accept its hospitality will leave with a better impression of the church. Why should it not? But if these public relations exercises, then some PR firm should show the Moonies that they get a pretty poor return for the money they spend on intellectuals, scientists and evangelicals.

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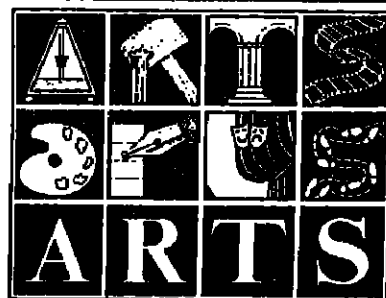
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The author is professor of sociology and dean of the faculty of economics and social sciences, Queen's University, Belfast.



Humphry Repton, landscape gardener, is the subject of a major new exhibition. JOHN DIXON HUNT reviews the exhibition; JENNIFER MCKAY reports on mime shows from the Edinburgh fringe; BRIAN MORTON discusses the new Liberal Party arts policy; LYNNE TRUSS talks to Bill Paterson, the National Theatre's Schwyk.

Figuring a landscape

Humphry Repton seems always to have eluded assessment. Though versatile and prolific, he never stamped his landscape designs with as radical a visible style as his predecessor "Capability" Brown. Jane Austen let her characters in *Mansfield Park* give the impression that he was a ruthless improver, just the man to criss the avenue and other old-fashioned elements from Rushworth's Sotherton. Later commentators have wavered between emphasizing his picturesque commitments (despite his quarrels with Uvedale Price and Richard Payne Knight) and his modest redefinitions of the Brownian inheritance. So this exhibition at the University of East Anglia's Sainsbury Centre, as part of the Norwich and Norfolk Triennial Festival, provides an admirable opportunity to review his work. It is a brave attempt to overcome the inevitable obstacles of a garden exhibition - and the credit is largely Repton's. For his watercolour designs convey many of the ineluctable experiences of a garden or landscape garden with freshness and insight: the invitations to explore what at first sight is only hinted, the variety of treatment of different sorts of ground, the sharp sense of land used and enjoyed by people, an instinct for animation (animals, distant traffic, smoking cottage chimneys), for colour and for scale.

And Repton's watercolours occupy the major part of this exhibition, almost making one forget the unconventional spaces of the Sainsbury Centre. Never before has there been gathered together so many of Repton's "Red Books" - so-called because he usually presented clients with "before" and "after" pictures of their estates, handsomely bound in red morocco (though sometimes in brown calf). The major frustration of the exhibition, in fact, is that one cannot turn the pages of this astonishing array of Red Books and, as Repton intended, follow him through an estate and watch its metamorphosis. So how does Repton emerge? The exhibition itself seems content to let his watercolours, other designs for conservatories, trellis and garden ornaments (three of which are recreated) and some MSS (including the recently discovered *Memoirs*) speak for themselves: a brightly bedecked and geometrical double garden in the Beaudesert Red Book (private collection) and a large topographical view of the Carlton House Conservatory - creepers along the girders - here attributed to Repton (lent by HM the Queen) are just two eloquent items. The exhibition itself makes no attempt, however, to indicate either the developments of Repton's career or the history of garden design before and after him, though there is some attention to the collaboration with his sons.

That particular task is undertaken by the organizers (George Carter, Patrick Goode and Kedron Laurie) in their accompanying book. Besides a catalogue to the exhibition, this includes a most useful and detailed gazetteer of Repton's work and a series of short essays which take up the matters which the exhibition itself neglects: the relationship to "Capability" Brown and to the squabbles about the picturesque, Repton's watercolours, architectural work, political affiliations and its effects on his later conservatism. Reading these after visiting Norwich made me wish even more that the exhibition had directed visitors a little more to the developments of Repton's career; his designs for suburban villas - "of late the greatest claim on my attention" - are given short shrift.

But the exhibition establishes him firmly as a landscape gardener - he actually invented the term - and not (as Mr Rushworth put it) "Repton, or any body of that sort". **John Dixon Hunt** *John Dixon Hunt, formerly professor of English at Bedford College, London, is editor of the "Journal of Garden History".*

The exhibition "Humphry Repton Landscape Gardener 1752-1818" runs at the Sainsbury Centre until October 31st. Thereafter it can be seen at the Victoria and Albert Museum from December 1 to February 20.



"Don't mention alienation" was, apparently, one of the first injunctions of director Richard Eyre when he started rehearsals for Brecht's *Schwyk in the Second World War* at the National Theatre. Bill Paterson, who plays Schwyk, agreed with the policy of ignoring Brechtian theory, but he has followed one of Brecht's dicta: that concerning the actor's need to preserve his initial responses to character. Among Paterson's first impressions of Schwyk were that he stood for decency, that he was funny without being a "joke figure", that his arguments mattered, and, most important, that he was essentially a "complete innocent". It was this last aspect of Schwyk which was preoccupying him when I talked with him in the week before previews. He wanted to convey no sense, he said, that Schwyk's successful manipulation of the Nazis is a result of "bam boozling or cunning". The logic with which he floors his opponents should appear to be "the logic of an idiot". There was no room for the idea of Schwyk as a delinquent self-seeker.

In the event Paterson's inspired comic portrayal leaves the matter open in a way Brecht might have approved. He is too fast-thinking, too fast-talking (even too fast-moving) to be any species of idiot, yet he is much too forthcoming about his opinions in dangerously mixed company to represent dedicated self-interest. The comedy of Schwyk, as played by Paterson, derives from a mixture of pragmatism and innocence. His pragmatic reaction to situations (which often involves him in flagrant crawling) is combined with a simplicity in perceiving these situations and candour in explaining them to others: "I'm going to defend civilization against Bolshevism - the alternative's a bullet in the chest, right?" **Lynne Truss**

Alphabet soup

The Liberal Party published its manifesto for the arts on September 15. In his foreword, arts spokesman Clement Freud MP introduced *The Arts, Artists and the Community* as "arguably the only coherent Arts policy to emanate from a political party". The document - perhaps inevitably - takes a self-conscious middle path between the Conservative "market economy" view of arts support and Labour's absorption (philosophically if not bureaucratically) of the arts into the social service sector. Liberals, Mr Freud continues, "see the Arts as a main stream of life" and aim for wider public involvement as a response to the challenge of economic recession. (enforced) leisure and rapid technological change. The Liberal Arts Panel sees a major threat to the quality of life in Britain in what it describes as the confused administration of the arts. Only a coherent and consistent arts policy imposed by 20th century technology has an escape route in human creativity, available not just to a narrow section of those who have, but to all.

Where then does that leave Gissing? Or, to put the question rather differently, just how good is he? In John Halperin's opinion, *New Grub Street* is "an unqualified masterpiece". Certainly it is better than any novel by Disraeli, Collins, Reade, Kingsley or George Moore, better than any of Mrs Gaskell's novels with the exception of *Wives and Daughters*, better than any of Charlotte Brontë's novels with the possible exception of *Jane Eyre*, better than any of Meredith's novels with the possible exception of *The Egoist*; indeed, it may well be a greater novel than any of those I have named.

That is perhaps unfair. "Without necessarily using the techniques of naturalism," but naturalism is more than a matter of technique. It is a considered point of view, a way of looking at the world which affects how one regards society, politics, history, as well as, and therefore, art. In this sense, Gissing's novels can put beside the fictions of Arthur Morrison, George Moore and very early Arnold Bennett. Hardly a daunting list, though, and to say that Gissing was better than them would not take you very far. Orwell suggests that Gissing is closest to Mark Rutherford, although he has to admit that Rutherford "was less definitely a prose writer than Gissing, even perhaps a technologically change is puzzling; at one level, technology is sterilizing and alienating; at another, liberating. We are a long way from Marcuse's automated society; work remains the basic unit of cultural impetus and technology is humanly controlled means. The Liberal manifesto parcels off the arts ("a main stream of life") into a compensatory, consolatory role which only heightens the problems it seeks to solve. The nineteenth-century tone is disturbing. We either still live in Ruskin's world or we do not.

Some doubt does begin to arise, however, when they are put in the context of wider administrative proposals. To restrict the authority of the ACGB and to coordinate its operations with other bodies in the arts field, the Liberals propose the formation of a Ministry of Culture;

this item caused most controversy on the Arts Panel and was the last - though the most radical - to be included in the manifesto. Many Liberals undoubtedly felt that a cultural ministry squared only rather badly with the decentralist tone of the document and party policy. To underpin the proposed new ministry, there are proposals for a single, coordinated Central Broadcasting Authority and, to thicken the alphabet soup further, a Visual Arts Marketing Committee (VAM) aimed at rationalizing and democratizing arts sectors which have become, in some eyes, counter-productively competitive.

The idea of a Ministry of Culture (admittedly advanced with some embarrassment) will strike some as suspiciously Orwellian, even perhaps Stalinist. Highly bureaucratized decentralization is not the kind of oxymoron to sell to the voters. Similarly, there seems to be a deep ambivalence in the report about the "challenges" of leisure and new technologies. Unemployment is a blight that "creativity" will mitigate and it would be naive to think so; the Liberal manifesto brackets enforced and voluntary leisure without making clear that the former is an evil and without explaining what precisely the latter is. In the technical, even the attitudinal, technological change is puzzling; at one level, technology is sterilizing and alienating; at another, liberating. We are a long way from Marcuse's automated society; work remains the basic unit of cultural impetus and technology is humanly controlled means. The Liberal manifesto parcels off the arts ("a main stream of life") into a compensatory, consolatory role which only heightens the problems it seeks to solve. The nineteenth-century tone is disturbing. We either still live in Ruskin's world or we do not.

Comic, inventive and short

What is it about mime that puts audiences off? On the Edinburgh Fringe traditional revues sell out no matter how tired the jokes. Yet a lively mime troupe may play to only five. A good mime show is invariably comic, inventive and short. The comedy derives from the inventiveness of the representation of inanimate things by animate human shapes or from the cunning employed by those shapes to tell a story without the aid of words. Brevity is important because mime is so rarefied. If you lose concentration as you watch there is nothing else to attend to.

Dramatics Mime Workshop had no trouble holding its audience's attention. The hilarious sketches in *Images on a Blank Stage* depended solely on their members' skill as mimics, not on props or music. Funniest was "Guardian Angel" in which the angel helps his unwilling charge through her morning routine by giving her his coat to use as a towel, turning off the gas she has left on, catching the toast as it springs from the toaster. The team, most of whom are still at school, worked well together, especially in their longer piece, "The Jungle", which is the tale of the wrecking of primeval man's happiness by modern man's concrete jungle.

Mivvy Mime Company also portrayed the monotony of city life and their accomplished technique was at its best depicting commuters as they got on and off moving escalators. The narrative frame was a day in the life of a woman and it was used to good effect when the heroine climbed into bed; suddenly all the events of her day were re-enacted, at high speed, and backwards. Mivvy's use of props was clever; as when the weight-guilty heroine's reflection appears in the mirror with three tyres around her waist. What Mivvy lacked was material.

Less polished but more entertaining was Prime Time Mime from Princeton University. In short sketches, some hardly more than tableaux, they rendered "The Reader's Digest version of *Gone With the Wind*" in under five minutes, portrayed a game of checkers, a pinball machine and a high speed motor boat, with great wit. "Surfin' on the Mile" was the stuff of comedy; one man topped about as the inexperienced surfer while behind him a human pyramid moved slowly across the stage to suggest the surfer's progress.

showed that amateurs can compete with professionals in the mime game. Comedians from Bristol University showed that enthusiasm is not their enemy and a collection of masks, neither of which could save them. Encounters on park benches, skits on *Dracula* or entanglements with deckchairs are situations too old to draw laughter unless given fresh treatment. Comedians, being students, did not disappoint as much as Mivvy. Prague and Israel's Boker Mime Theatre and The two Czech men looked confident enough in their schoolgirl's dresses and knickerbockers. But the scenario was of limited interest. Boker Mime Theater was neither comical, inventive, nor short. To be fair to its three mimes, they did not seem to want to raise a laugh, so earnest was their work. In "Evolution", for example, "prehistoric man arise and reach the beginning of civilization" to the strains of *Also Sprach Zarathustra* - hardly an original choice.

of the creative impulse with material circumstances," he calls it. (But then how many novels are there which take this collision as their subject?) "Into this book Gissing put everything he knew about the barriers thrown up to artistic genius by mean necessity." But for goodness' sake, Gissing goes out of his way to show that none of the writers in his novel is a genius. They are at best talented and the sadness of their lives results from their either having to compromise their talents or go under. That is bad enough, but there is worse to come. Halperin denies that *New Grub Street* is a naturalist fiction. The evidence for this is "that some years later" [my italics] Gissing wrote a preface to the *Old Curiosity Shop* in which he said that he thought a naturalist method was rarely successful in fiction, that in 1899 he told Gabrielle Fleury that he did not like "extreme naturalism" and "Edouard Bertz that he had 'grown to abhor Zola's grossness'" and that in an essay of 1895 "he was to attack the school of naturalism head on." This will never do. It is undoubtedly true to say that Gissing came to dislike some of the techniques of naturalism over the circumstances that later, but as I have already pointed out, naturalism is more than a matter of technique. Besides, *New Grub Street* was written in 1890 and published the following year. It is therefore absurd of Halperin to wheel up evidence which all belongs to later years, as though Gissing never changed his mind. (He did so on more than one occasion - see our major issues.) If we do not call *New Grub Street* a naturalist novel then I do not know what we can call it. What Halperin does is to provide a ten-page plot summary and call the novel an unqualified masterpiece. You can do that with anything.

Halperin might, I suppose, protest that he is not writing a purely critical work and that I unfairly attack him for failing to do what he never intended doing in the first place. But it is he who calls *New Grub Street* a masterpiece, and he is surely required to try to do something to make good on his claim? He says that *Sleeping Fires* "is an exuberant little tale that has always been passed over too quickly by Gissing's critics." He then passes over it with a page-and-a-half of plot summary and concludes, "I believe it is one of the greatest short novels ever written, though no one has ever heard of it." Well, I have read *Sleeping Fires* and it is a pleasant enough little tale. But "one of the greatest short novels ever written."? You mean as great as *Billy Budd*? Or *The Red Badge of Courage*? Or *Heart of Darkness*? Or *The Death of Ivan Ilyich*? *George Gissing: a life in books* may have some use as biography. As criticism it is worthless.

It is a characteristic of Gissing that he pretends to a kind of scientific exactness of observation. He uses concrete examples from whom he can generalize. He studies them, such as way as to bring out the "laws" governing behaviour and the social process. Naturalism goes hand-in-hand with Social Darwinism. When Gissing calls one of the women of *New Grub Street* "a positive hyena to other men," he does so because he wants to make it clear "how savage" the social conflict is? (So much for Halperin's belief that Gissing does not "retreat into metaphor.") Halperin's claims for *New Grub Street* are as extreme as they are inaccurate. "Perhaps the greatest novel ever written about the collision

of the creative impulse with material circumstances," he calls it. (But then how many novels are there which take this collision as their subject?) "Into this book Gissing put everything he knew about the barriers thrown up to artistic genius by mean necessity." But for goodness' sake, Gissing goes out of his way to show that none of the writers in his novel is a genius. They are at best talented and the sadness of their lives results from their either having to compromise their talents or go under. That is bad enough, but there is worse to come. Halperin denies that *New Grub Street* is a naturalist fiction. The evidence for this is "that some years later" [my italics] Gissing wrote a preface to the *Old Curiosity Shop* in which he said that he thought a naturalist method was rarely successful in fiction, that in 1899 he told Gabrielle Fleury that he did not like "extreme naturalism" and "Edouard Bertz that he had 'grown to abhor Zola's grossness'" and that in an essay of 1895 "he was to attack the school of naturalism head on." This will never do. It is undoubtedly true to say that Gissing came to dislike some of the techniques of naturalism over the circumstances that later, but as I have already pointed out, naturalism is more than a matter of technique. Besides, *New Grub Street* was written in 1890 and published the following year. It is therefore absurd of Halperin to wheel up evidence which all belongs to later years, as though Gissing never changed his mind. (He did so on more than one occasion - see our major issues.) If we do not call *New Grub Street* a naturalist novel then I do not know what we can call it. What Halperin does is to provide a ten-page plot summary and call the novel an unqualified masterpiece. You can do that with anything.

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John Lucas is professor of English at Loughborough University.

Events

- Birmingham. First of a series of puppet shows. "The Prince who wouldn't laugh" October 9 at 7.30pm. Grand Hall, Goldsmiths College, London. Inaugural concert of the Merlins Chamber Orchestra, conducted by Leonard Davis. Music by Mozart, Copland, Janacek, Elgar and Ireland. October 10 at 7.30pm. Music Theatre, Kings Arms Arts Centre, Warwick. A concert of music from the 1930s to the 1960s, to the Second World War. The evening's talk is "India in the 1930s-1940s". October 11. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award. October 12. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award. October 13. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award.

- October 13, 19 and 20. Macrobent Arts Centre, Bedford Square, London. A series of midweek spectacles including *Prairie of Polly*, a circus style entertainment, by The Medieval Players. October 14. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award. October 15. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award. October 16. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award.

- October 17. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award. October 18. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award. October 19. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award.

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- October 23. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award. October 24. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award. October 25. Corn Theatre, Bedford Square, London. Young writers' festival. Presenting work by the winners of Warwick Arts Centre's Corn Theatre Award.

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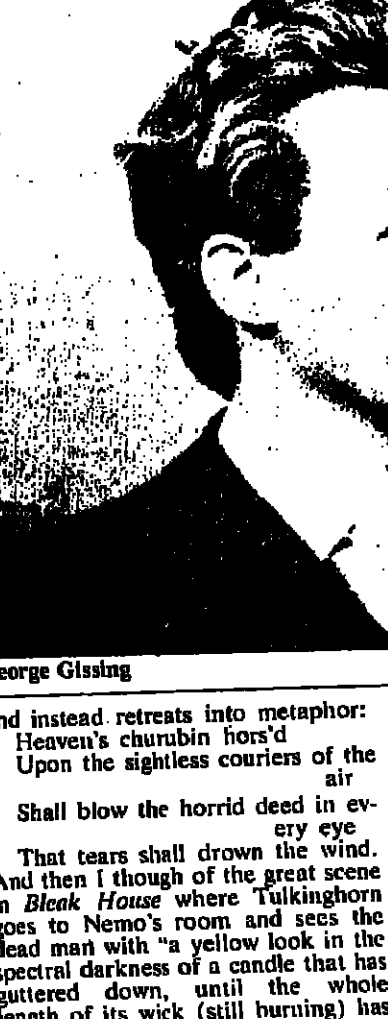
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Oxford University Press, £18.50
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It is characteristic of George Orwell that he should have thought highly of Gissing. After all, nobody else did. In 1948 Orwell wrote an essay which, when it was finally published in 1960, marked a new stage in the Gissing revival. "England has produced very few better novelists," Orwell said, "and perhaps feeling he had better justify the apparent extravagance of that claim by a novel. It is: a story which attempts to describe human beings, and - without necessarily using the techniques of naturalism - to show them acting on everyday motives and not merely undergoing strings of improbable adventures. A true novel, sticking to this definition, will also contain at least two characters, probably more, who are described from the inside and on the same level of probability. Gissing, in effect, rules out novels written in the first person. If one accepts this definition, it becomes apparent that the novel is not an art-form in which England has excelled.

One could write a book on the errors, absurdities and non-sequiturs packed into those three sentences. "No English novelist put more of himself into his novels than George Gissing." What, not Lawrence, whose presence is everywhere in his writing? Besides, if Gissing did put so much of himself into his novels then that would be quite enough to justify a phenomenological approach. (Has Halperin actually read any Husserl?) But then it turns out that Halperin means we can understand and presumably appreciate Gissing's art only if we are fed a certain amount of biographical information. He might as well argue that Gissing has no art. Suppose we knew very little of Gissing's life, as little, say, as we know of Shakespeare's. What possible difference could it make? If a great deal, then we would have to conclude that Gissing had not written novels but had simply strung together a series of facts that made no artistic sense. James said that when a fact enters a work of art it becomes truth. A work of art is a work of imagination. It exists apart from the artist. To say this, I know, to say something dismally obvious, but it has to be said because Halperin quite clearly wants to make huge claims for Gissing and at the same time insist that only biographical information can make those claims stick.

It might perhaps seem that I am bringing up the intentionalist fallacy against Halperin. Not at all. Sir William Empson has brilliantly and definitively shown that to be nonsense. Of course an author's intention. But Halperin does not want to do that. Nor does he wish to see Gissing's novels in the kind of context that might make sense of them and help to explain their worth. He is against that just as he is against those straw critics - who are they? - who hope to deal with Gissing's fiction "phenomenologically or from a narrow structuralist approach." "Narrow" is a word. Would a broad structuralist approach be acceptable? Or does Halperin mean that any structuralist approach is narrow? It's aw' a muddle.



George Gissing

and instead retreats into metaphor: Heaven's churlish hors'd Upon the sightless couriers of the air Shall blow the horrid deed in every eye

That tears shall drown the wind. And then I thought of the great scene in *Blauk House* where Tullingham goes to Nemo's room and sees the dead man with "a yellow look in the spectral darkness of a candle that has guttered down, until the whole length of its wick (still burning) has doubled over, and left a tower of winding-sheet above it." Poor Shakespeare, poor Dickens. As it happens, that "focus on the individual confronted by circumstances, social and financial, over which he has no control," might have suggested to Halperin a way of dealing with Gissing, a context in which to set him. To all intents and purposes Gissing is a naturalist, not a structuralist. "Narrow" is a word. Would a broad structuralist approach be acceptable? Or does Halperin mean that any structuralist approach is narrow? It's aw' a muddle.

Here is an example of the Halperin method at work: At fifteen, if we take Harvey Rolfe in *The Whirlpool* as a portrait of the novelist at that age, Gissing was loutish, ungainly, scholarly, conceited, bashful - and tormented by his bashfulness. Well now, suppose we do not take Harvey Rolfe as a portrait of the novelist? Suppose instead we think of him as an act of imagination. Ah, but we are not to do so. "At any rate this is how he saw himself." So that is that. Leaving aside the question of how Halperin knows this, I will say that I am surprised that anyone who thinks so poorly of his subject's powers of imagination should want to write a book about him. Not that it requires very great powers to invent a fifteen-year old who is "loutish, ungainly, scholarly, conceited, bashful - and tormented by his bashfulness." It is a bit awe-inspiring, on the individual, controlled by circumstances, social and financial, beyond his control that gives such power to Gissing's best novels - the confrontation of men and economic systems, the brute force of money, the negation of the individual in a money-grabbing system. Search or be strangled, as Mr. Boffin might say. But where Dickens treats into metaphor, Mrs Gissing into amused tolerance, Mrs Gissing stands unflinchingly literal, brutally honest. Dickens retreats into metaphor: I tried the substitution game on this When Shakespeare wants to show us the mind of a would-be murderer he fails to be literal, brutally honest

BOOKS

Capitalist curriculum

Education and Power by Michael W. Apple
Routledge & Kegan Paul, £10.95
ISBN 0 7100 0977 7
Cultural and Economic Reproduction in Education: essays on class, ideology and the state edited by Michael W. Apple
Routledge & Kegan Paul, £9.95 and £7.95
ISBN 0 7100 0845 7 and 0846 5

Since the mid-1970s the most vigorous movement in the sociology of education has been a Marxist one. At least two broad phases can be distinguished.

The first was exemplified by *Schooling in Capitalist America* (1976) by Bowles and Gintis. Roughly, their thesis was that American schooling is essentially reproductive and that the schools act primarily as agents serving the needs of capitalist society rather than the egalitarian educational goals they were often fondly supposed to be serving. The school in fact mirrors the unequal structure of the capitalist economy in which they are situated.

No sooner was the book published than its theory of the correspondence between the schools and capitalism was denounced - not by liberals or conservatives, but by other Marxists. The theory was too "economistic", too functionalist, in outlook; it was denied that there was the close correspondence between the needs of capitalism and what went on in schools that its proponents had claimed. In particular, its critics argued that the correspondence theory did not sufficiently take into account the fact that capitalist society is beset with contradictions or that ideologies, as they "lived", have a relative degree of autonomy with respect to the economic base of society.

In addition, the theory implied a conception of individuals and groups as essentially passive in relation to the social forces around them and gave little scope for the exercise of creativity or initiative. To make matters worse, this latter feature of the theory seemed itself to imply submission to a kind of political fatalism: nothing significant could be done to improve the educational system from a socialist point of view until capitalism had collapsed under the weight of its own internal contradictions.

In more recent years a second phase of Marxist educational theory has emerged, enriched with fresh empirical investigations into the actual process of schooling and how the participants see it. According to the new view, although schooling does serve important reproductive functions in relation to capitalism, the process of reproduction is more complex, less certain in outcome and less deterministic than earlier theorists had supposed. This is because the contradictions in capitalism and the relative autonomy of ideology will inevitably be reflected in the school. Often schools are subjected to conflicting pressures and in addition they become sites of "resistance" and "contestation", between themselves and their pupils. Successful socialist

action depends on exploiting these contradictions and resistances in the appropriate way.
Michael Apple's new book *Education and Power* belongs to this less deterministic phase of Marxist educational theory. The same is true of the collection of papers by British and American authors which he has put together under the title *Cultural and Economic Reproduction in Education* and to which he makes frequent reference in his own book.
Education and Power begins by affirming that there is indeed a crisis in contemporary capitalist society and that this is reflected in its impact on schooling. The old correspondence theory is outlined and some of the theoretical and empirical inadequacies are charted. The core of the argument is to be found in chapters three and four.

both sub-titled "culture as lived", in which Apple draws upon the empirical evidence which he thinks calls into question the smooth functionalism of the correspondence theory.
The first of these chapters contains a criticism of the functionalist theory of the hidden curriculum. This view is that the hidden curriculum is best understood as a programme of socialization called forth by capitalism's need for disciplined and obedient workers. Apple's criticism seems to be that this view is naive because it assumes as true what is in fact management's ideal of what workers should be like. Empirical investigation shows that far from being docile and obedient, even non-striking workers offer all sorts of resistance to management's attempt to gain control over the production process. The implication that I

assume that we are supposed to draw is that the hidden curriculum cannot be as powerful a means of socialization as it is sometimes supposed.
The second of these chapters draws upon empirical evidence adduced by such writers as Paul Willis, Mike Brake and others which also shows that the cultural and economic apparatus of society, and the school in particular, though powerful, is not so monolithic as the correspondence theory suggests. Schools, as well as being agents of reproduction, are also sites of conflict where, for instance, Willis's "lads" contest the official culture of the school.
The general moral that emerges from Apple's book is that although the schools are agents of reproduction, the conditions under which this reproduction takes place have to be

fought for. This implies that the battle can be lost by the agents of reproduction. Resistance to material and ideological reproduction is possible. Unfortunately (and here's the rub) resistance can be progressive or reactionary from a socialist point of view and kinds of resistance that are progressive can only be identified by careful analysis.
Apple's argument is not new, nor is it formulated with the clarity or force that one might wish. On completing the book, I felt that Marxist sociology of education still awaits its gifted exponent.

Grenville Wall
Grenville Wall is head of the school of philosophy and religious studies at Middlesex Polytechnic.

Search for meaning

New Directions in Religious Education edited by John Hull
Falmer Press, £10.95 and £5.95
ISBN 0 905273 31 1 and 30 3

New Directions in Religious Education inevitably invites comparison with *New Movements in Religious Education*, edited in 1975 by Ninian Smart and Donald Horder. Each is a symposium, but while *New Movements* aimed to explain the nature of the subject, *New Directions* provides an insight into the continuing discussion about religious education.

John Hull has selected 17 of the articles which appeared between 1971 and 1981 in the journal he edits, the *British Journal of Religious Education* (formerly *Learning for Living*). The original purpose of the articles varied widely: accounts of personal research, contributions to the debate surrounding the Birmingham Agreed Syllabus, arguments for a particular approach to religious education, descriptions of work done in schools. John Hull has given a certain unity to the book by prefacing each of its five sections with a short commentary in addition to his general introduction.

Three of the articles are of particular value. Discussing Religious Education: a conceptual framework for the consideration of curricular issues" by David Goodenham illustrates the range of approaches to the subject by means of a matrix constructed from a religious-humanistic axis (from interrelations of life where the concept of God is central to interpretations where the concept of man is central) and a confessional-academic axis (from aiming at religious or ideological commitment to aiming at objective intellectual inquiry). Any form of religious education can be plotted in relation to these two continua. He shows, for example, how the popular "search for meaning" approach - the study of "other faiths/world-views seen in relation to one's own" - belongs in the confessional-humanistic tradition. The use of this framework could bring some much needed clarity of thinking into discussions about the subject.

Daniel Hardy's closely reasoned article, "Truth in Religious Education: further reflections on the implications of pluralism", claims that much of the current thinking about religious education involves preconceived notions about such important matters as "What the religions are, how they are (or are not) true, how they are to be presented and understood" - for example, the supposition that religions are ways of interpreting and living in the world. He warns against the translation of "religious truth" into "religious (truth claims)", to be disseminated uncritically in the classroom.

Trevor Kerry's article, "The Demands Made by RE on Pupils' Thinking", should be compulsory reading for all religious education teachers. It is an analysis of 18 lessons given by three secondary school teachers. It reveals the low levels of cognitive demand made by what the teachers said to their pupils and by the responses expected from them, both in classroom discussion and in tasks set. In this kind of lessons which

are given in thousands of classrooms throughout the country.
The book as a whole will probably be of greatest use to those engaged in the study of religious education. It indicates the nature of empirical studies being undertaken and illustrates the diversity of approaches still being advocated. It is this very diversity which the general reader could find baffling. Daniel Hardy's understanding of religion is in sharp contrast to that of John Wilson; Owen Cole and John Elliott have completely different ideas of what the content of religious education should be; and Paul Fueter, writing as recently as 1979, manages to describe imaginative techniques for "transmitting the biblical message" as if there were no questions about educational aims or the nature of the subject in a pluralist society.

Jean Holm
Jean Holm is principal lecturer in religious studies at Homerton College, Cambridge.

Learning by helping

Study Service: an examination of community service as a method of study in higher education edited by Sinclair Goodlad
NFER-Nelson, £8.95
ISBN 0.85633 242 0

Study service is the term used to describe the direct practical service to the community undertaken by students as an integral part of their studies. The educational effects of the service on those who serve are considered at least equal to the contribution they make by their service. The learning acquired from community service is of two kinds: the first is greater understanding of the subject areas studied by the students. The second is self-related knowledge - more awareness of, and changes in, the students' own attitudes, assumptions, behaviours and so forth.

This book is an informative and enjoyable survey of study service, drawing on the experience of its contributors in Britain, America, Asia and Africa. There are chapters on the theory and practice of study service; its rationale; and how to evaluate its implementation and effectiveness. There are four papers that provide case studies of study service overseas, in science teaching, a medical school and a geriatric hospital. Other examples are given in a paper that describes a two-year inquiry into study service in Britain. This has revealed that study service is not confined to students in the "helping professions" such as social work and medicine but is to be found as part of law, management, engineering, science and mathematics courses, and many others as well. The agencies who were the major recipients of students on study service were within the statutory sector, particularly social services departments.

The book's introduction promises to confront issues of political economy raised by study service, as well as value questions such as "shouldn't students stay in the lecture room getting the qualifications which they need, rather than poaching jobs from

the unemployed?" Some of the contributors do discuss such questions and the papers by Patrick Nuttgens and David Brockington are specially stimulating. But on the whole the book leads towards descriptive accounts of study service at home and abroad. There is, too, a sometimes uncritical advocacy of its place in higher education. This may be because many of the contributors are largely concerned with policy in their academic institutions, and may not be as familiar as some of their junior colleagues with the practical difficulties of study service. The collection would have been more balanced had it included more papers by staff (and students) with the day-to-day responsibility of implementing programmes of service to the community. There is, for example, considerable experience of the problems and limitations of student placements within social work courses that might have been included to provide a more critical discussion of study service.

The extra-curricular community activities of students are not part of the definition of study service. This is reasonable enough, but it leads the contributors to ignore some of the larger factors that have influenced the development of study service in this country. Service to the community by students is linked to the "student revolutions" of the middle and late 1960s that shook political and education establishments in Britain, France and America. The radical commitment to service became institutionalized in organizations such as Student Community Action, and in the setting up of task force and the Young Volunteer Force Foundation. A good many of the recruits to social service departments during the 1970s were in the first part of the soviet era - their social science and liberal arts graduates who had been involved in community action in the neighbourhoods in which their colleges were situated.

D. N. Thomas
D. N. Thomas is lecturer in community work at the National Institute for Social Work.

A bold vision?

The Challenge for the Comprehensive School: culture, curriculum and the community by David H. Hargreaves
Routledge & Kegan Paul, £4.95
ISBN 0 7100 0981 X

There are some medical treatments which seem worse than the condition they are intended to cure. This is particularly so if they are purely experimental, if they have never proved themselves in successful treatment. The patient whose condition is the subject of David Hargreaves' book is the comprehensive school, and it must be said immediately that while his diagnosis is superb, the cure he proposes carries risks. The elements of the diagnosis are not entirely new. First there is the problem of the hidden curriculum which transmits a self-image of failure and inferiority to all but the most able. Hargreaves sees the academic weighting of the curriculum, and the competitiveness this engenders, as responsible for the development of an "alienated" counter-

culture, and a more widespread rootless depersonalization which he traces to certain practical features of comprehensive-school life. These include the loss of the traditional form or class unit with its territorial base in a classroom, leading to what he calls the "paddington station effect" - all change and move on every forty minutes and the consequent loss of a personal desk which leads to the "Luton Airport effect" - pupils towing large bags and carriers from place to place throughout the day. In all this Hargreaves displays a refreshingly open approach to hark-nerved sociological theses about social class and educational opportunity, although his hijacking of the term "individualism" to describe it all is to be deplored.

The cure, however, is another matter. The first element in the cure is the recognition of the political nature of education, its role in creating or maintaining a particular social ideal, which Hargreaves concedes with the individualist conception engendered by child-centred progressivism, the Pragmatics and the craft ideal. His remedy for the loss of social cohesion is a compulsory core curriculum for all pupils regardless of ability, based on integrated community studies and the expressive arts. The freedom necessary to undertake this would be achieved by the complete abolition of 16-plus exams and the outlawing of credentialism - that is, occupational discrimination on the basis of examination results.

An interesting additional proposal is for the introduction of educational vouchers, a scheme he recommends as being likely to capture for the state system some of the best features of independent schools - their character and philosophy, for example, and their responsiveness to their clients. For in the end Hargreaves is as opposed to "the encumbrance of a centralized and bureaucratized state education system" as many an individualist. Nevertheless, it is disturbing that his ultimate recommendation for promoting these proposals challenges the traditional freedom of the teaching profession from political control of the curriculum, as well as discounting the wishes of parents, who are known to be conservative in these matters.

This question this very interesting and readable book poses is whether the patient would really benefit in the way Hargreaves suggests from the excitement and innovation that these changes would bring in their train - though the very notion of a compulsory core curriculum lies oddly with the idea of freedom and excitement - or whether the cure is worse than the disease. Is this, as Hargreaves claims, "a bold vision" or is it, as seems more likely, a step in the direction of the compulsory abolition of education, the creation of the anti-school where creative time to encounter humanity's cultural heritage (which unfortunately just happens to have strongly "cognitive-intellectual" elements) will be compulsorily denied to those adolescents who might have such interests. In order to prevent the educational and cultural apartheid which may develop when people are allowed to be as different as they naturally are?

Brenda Cohen
Brenda Cohen is lecturer in philosophy at the University of Surrey.

BOOKS

Poland's span

God's Playground: a history of Poland
volume one: *The Origins to 1795*
volume two: *1795 to the Present*
by Norman Davies
Clarendon Press: Oxford University Press, £27.50 per volume
ISBN 0 19 822555 5 and 822592 X

There is no denying the magnitude of Norman Davies' achievement, in quantitative as well as qualitative terms. His history of Poland is over 1,300 pages long. It is illustrated by 160 plates and almost 50 maps. Innumerable extracts from contemporary sources give poignancy to the narrative. He covers the whole span of recorded Polish history - from the rise of the dynastic Piast state to the emergence of Solidarity. There is no comparable treatment of the subject by another single author writing in English. Even in Poland histories on such a scale are normally collective works rather than books written by one man.

Davies maintains a good balance among different aspects: political, diplomatic, military, economic, social and cultural. However, his interests gravitate definitely towards the most recent centuries. The first 600 pages of Polish history receive 100 pages; the next 200 years 400 pages; the last 200 years 650 pages. There are good reasons for highlighting the last two centuries - dominated by loss of independence and national struggles to recover it - because the modern Polish nation is primarily a product of the period.

Instead of continuous narration we get chronological chapters interspersed with analytical essays on particular topics (the Church, the nobility, the Jews or the frontiers). This suggests that Davies is not concerned with just telling the story. In a sense he has written more than history. It is a historical reference book, almost an encyclopaedia of historical knowledge about the Polish lands and the Polish people, as well as the other peoples with whom the fate of the Poles has been intertwined. Not surprisingly, perhaps, he has no simple thesis to lay down, no basic point to make, no ideological axe to grind. In particular he shies away from schematic and rationalizations; the unexpected, the absurd and the irrational get due weight in his narrative and analysis.

"Poland" is a somewhat amorphous concept. Though a political entity under that name emerged on the historical scene in 963, the shape of its territory and the composition of its population have changed radically several times over the years. Its political identity has also fluctuated widely. During part of the Middle Ages Poland dissolved into a collection of principalities. For two hundred years it existed as a kingdom in personal union with Lithuania; for another two hundred as a federal Polish-Lithuanian republic of nobles with an elective monarchy. For almost 125 years there was no independent state of Poland at all - just communities of Polish-speaking people, more or less concentrated, under the rule of three foreign governments.

Apart from statehood and political boundaries the area of settlement by Polish-speaking people was liable to change quite drastically, as it did after the Second World War, with the loss of the eastern territories to the Soviet Union and the annexation of pre-1939 German territories in the west and the north. In Polish history at least, more striking than any other, is the most profound break with the past occurred in 1944. Territorially Poland returned to the frontiers of its cradle. Ethnically it became highly homogeneous. For the first time since the early Middle Ages the Polish state became inhabited by a population which almost exclusively Polish-speaking and Catholic. And the Communist system

imposed on Poland by the Soviet Union had no roots in the country's past at all.
For most of its history Poland was a mosaic of ethnic and religious communities - Poles, Jews, Germans, Lithuanians, Byelorussians and Ukrainians, to name only the major ones. The Polish Jews formed the largest Jewish community in the world and up to the end of the eighteenth century had status of a fifth estate of the realm. After the loss of independence in 1795 the fate of the Poles and their former compatriots became intertwined - culturally, economically and politically - with that of the partitioning states of Austria, Prussia and Russia. Despite this the period of partitions saw the strong growth not only of Polish but also Jewish, Ukrainian and other nationalisms so that the restored Polish state of 1918 became an arena of ethnic and national conflicts almost without precedent in the earlier his-

tory of Poland. During the Nazi occupation nationalism of another kind raised its head and the Polish lands became the graveyard of six million Polish citizens, half of them Jews.
Davies sees a tendency among Polish historians to minimize the complexity of Poland's historical reality and to focus rather narrowly on its specifically Polish aspects. This nationalist bias has been especially pronounced in Communist Poland where the past has been distorted to support the claims of the Soviet Union in the East and the Poles themselves in the West. Davies deplores this tendency and throughout the book emphasizes the richness of cultures and traditions that have constituted Poland's past. This is one of the most interesting and valuable aspects of his book and forms perhaps its most original contribution to Polish historiography.
Davies' account of post-Second

World War Poland is brief but remarkably comprehensive. He manages to tell the history of the Communist Party, the changes in the political regime, the uneven economic growth and the development of culture, all in 100 pages, including a brief postscript on the Solidarity movement. He views the Communist period as a search for a modus vivendi between the people and the rulers - indeed today is more uncertain - which is far from being concluded. To everyone who knows its history, Poland is something more besides. Poland is a repository of ideas and values which can outlast any number of military and political catastrophes. Poland offers no guarantee that its individual citizens will observe its ideals, but stands none the less as an enduring symbol of moral purpose in European life.

Z. A. Pelczynski
Z. A. Pelczynski is a fellow of Pembroke College, Oxford.

Within limits

Democratic Reform in Yugoslavia: the changing role of the party by April Carter
Frances Pinter, £13.50 and £6.50
ISBN 0 903804 88 3 and 86187 228 2

Despite a high level of interest in Yugoslavia among western scholars, the ruling party the League of Communists, until now has been relatively neglected in comparison with other topics. More attention has been focused on the experiments in workers' self-management and market socialism, or the problems of reconciling ethnic rivalries and of ensuring stability after the death of Tito. Yet each of these has implications for the nature and role of the party and the first three would seem to require radical changes in that institution.

Dr Carter's study of the league is concerned with the period between 1964 and 1971, when pressure to move away from orthodox forms of communist party rule was at its greatest. As such it raises issues which interested in Yugoslavia and the peculiarities of its form of socialism, but to those interested in the problems of reform in East European states in general. As Dr Carter points out, "Yugoslavia provides the best case study available so far of the real possibilities and limits of democratic reform within a communist-party state."
The record, in practice, however, was somewhat questionable, for alongside some decentralization of power to lower levels of the party, a degree of separation of party and government, and greater tolerance of dissent (in its broadest sense) the league proved reluctant to dispense with some key elements of orthodox communist party rule. In particular, its retention of the principle of democratic centralism, with only minor modification permitting the expression of minority disagreement (and that ambiguous), ran counter to general democratizing trends. As the author suggests, this reluctance to break with one of the key orthodox elements "illustrates the limits of the reformers' willingness to take risks in promoting democracy inside the party and also set limits to their readiness to relax party control over political and economic life".
Nevertheless, whatever constraints the party placed on reform, the league, both in its internal affairs and in its relationship to society, moved some way away from the orthodox model found elsewhere in eastern Europe. Concessions to the republican parties inhibited the maintenance of monolithic unity within the league. It was prepared to tolerate freer discussion, debate and criticism both within its own ranks and in a press which was more varied and independent than in any of its neighbours. On the other hand, the party's continued control over appointments in the political and economic sphere (if less direct before) and its continued subordinate organization involving non-party members) were areas where

departures from orthodoxy were limited. Overall, although the league made a break with the traditional, commanding "leading role" of an orthodox communist party, the evidence suggests it was unwilling to go too far in the direction of the persuasive "guiding role" it officially sought to play.
Nevertheless, the significance of the reforms which were approved in this period should not be understated for, as the author points out in an epilogue assessing the past decade, the relatively open society which Yugoslavia remains has to be seen as "a significant heritage from the liberalizing trends of the sixties".
Dr Carter's book is a valuable contribution to our knowledge of Yugoslav politics. It is also more than that, for in highlighting the Yugoslav dilemma of how to reconcile the conflicting goals of extending participatory democracy, introducing liberal reforms and preserving one which is of equal relevance to other East European states.

Gordon Wightman
Gordon Wightman is lecturer in politics at the University of Liverpool.

The big heat

Naming Names by Victor S. Navasky
John Calder, £7.95
ISBN 0 7145 3908 2

Victor Navasky's study of the impact on Hollywood of the House Committee on Un-American Activities begins in November 1947 when the bosses of the Hollywood studios met at the Waldorf Astoria in New York. There they agreed secretly to blacklist all communists and fellow-travellers in the motion picture industry.
Though the existence of a blacklist was denied, its practical effect was soon felt and its victims included some of the highest-paid and most talented figures in the industry. Navasky shows that the blacklist was willingly offered to the House Committee as an act of self-cleansing which successfully diverted public attention from the studios and in a handful of wartime films had never been forgiven by the right towards the far more vulnerable actors, writers and directors.

The first hearings on the industry's penetration of the film industry had begun in October 1947, preceded by more than two years Senator McCarthy's famous speech in Wheeling, West Virginia, in which he made his first allegations about communists in the State Department. The HCUA hearings were not synonymous with McCarthyism. Navasky does not emphasize the differences between the committee's approach to anti-communism and McCarthy's, but he shows that the committee had a fully evolved ritual of confession and purgation before McCarthy achieved his notoriety.
Of 41 witnesses subpoenaed for the first hearing, 19 were "unfriendly," that is, unwilling to name others

who had been in the party, or who were involved in its activities. Of these, 13 were Jews. It was not the case however that the American Jewish community defended its own. In fact, there were so many Jewish voices advising caution, and so many Jewish executives in the studios actively blacklisting other Jews, that the undercurrent of antisemitism within the committee was never seriously confronted.

A less well-publicized purge reached down to the ranks of the technicians, labourers and others employed by the studios. Navasky has tried to convey the complexity of labour relations in Hollywood, and the role played by organized crime. The right-wing leadership of the craft unions worked enthusiastically with the FBI, the committee and the studios to get rid of communists.

However, Navasky has not attempted to write yet another account of the committee. His aim is to study the other dimensions, of blacklisting and "naming names." A political history, he thinks, should try to give full weight to the subjective and personal elements. What for example made Elia Kazan able to name names, but not Lillian Hellman? Navasky finds the Hellmans more sympathetic than the Kazans, but he helps us to see how the whole business of betrayal was thoroughly assisted by American cultural values. He has an excellent discussion of the way the informer was raised to the status of culture hero. He explains how the mechanism of naming names actually worked: what the role of the FBI was, and the American Legion, the Hollywood gossip columnists and right-wing political journalists. Navasky examines the career of Martin Gang, a Hollywood lawyer who specialized in people who had political "problems". Gang was the man to see if you wanted to clear yourself with the committee.

There seems to have been no direct political pay-off in the Holly-

wood hearings, no legislation to be prepared or New Deal programme to be abolished. It is nowhere made clear in *Naming Names* why the committee went to Hollywood in the first place. There was certainly a large and active communist presence in the industry, but I suspect Navasky would argue that the hearings transcended politics as such. His interpretation is that the hearings cannot be reduced to a narrowly political meaning. There were too many curious rituals which the witnesses were forced to undergo. They were expected to admit unreservedly their errors, and to proclaim themselves unhesitatingly patriotic now. The willingness to name names was the heart of the process. Any reservations or liberal scruple at naming individuals (who would almost certainly be themselves subpoenaed) was taken as a sign of inner resistance. There were some heroes who risked great personal harm by refusing to betray others. But when self-interest and political conviction coincided, as it did so often among ex-communists, the flood of names reached ludicrous proportions.

Navasky helps us to see those who talked, and those who did not; as human beings. When he began interviewing in the 1970s, a few participants, including Elia Kazan and Budd Schulberg, showed no signs of regret that they had appeared as friendly witnesses before the committee, but many others seem to have attempted to exorcise their guilty feelings through remarkably open and frank interviews with Navasky. He has found in the survivors an anguish which is the essence of broken lives and guilty consciences.

Eric Homberger
Eric Homberger is lecturer in the School of English and American Studies, University of East Anglia.

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BOOKS

Mind over matter

Idealism Past and Present
edited by Geoffrey Vesey
Cambridge University Press, £9.95
ISBN 0 521 28905 X

The counterpoint between idealist themes and sceptical or realist alternatives has in many ways provided the backbone of the western philosophical tradition. When problems posed by the existence of the external world and our perceptions of it have proved particularly troublesome a way forward has frequently been found through the hypothesis that reality is not only structured by but consists of Mind, minds or mental states. Thus, for example, the grand metaphysical tradition of nineteenth-century German idealism arose directly out of problems left by the empiricism of the Enlightenment. Thus also we have a minor revival of interest today as attempts are made to test linguistic and analytical philosophy against idealist presuppositions.

The thirteenth series of Royal Institute of Philosophy Lectures, delivered in 1978-79 and published this year under the title *Idealism Past and Present*, gives one indication of the nature and scope of the revival. As usual the lectures are prefaced by a lucid and informative introduction by Professor Vesey. Also as usual they provide a fair measure of the profession's current preoccupations, as an overall theme can be shown to be centred around a limited number of contentious points. On the evidence of this volume the interest of the British philosophical community in technical idealism has three principal roots.

The first of these concerns the status of the classic formulations of Plato and Aristotle, as well as certain Renaissance developments, and centres on claims such as those of M. F. Burnyeat that Greek "thought and theory are dominated by an unquestioned, unquestioning assumption of realism". From this perspective the origin of idealist views about the problem of the external world has to be redated, not with Plato's theory of Forms (as Berkeley and numerous others saw it) but with Descartes's redefinition of epistemology on an entirely subjective grounds. This interpretation confirms the modern interest in the epistemological rather than the metaphysical dimensions of idealism.

Secondly, homing in historically on this period, there is keen interest in the technical dialogue between Descartes, Berkeley (himself perhaps the revival's current star) and Kant. At least three lectures draw centrally on the relationship between primitive rationalism, immaterialism and transcendental idealism in their efforts to clarify the bases of acceptable idealist argument, and for others it is an important sub-text.

Finally, following a cue given by Bernard Williams in a lecture in an earlier series, several contributors re-examine the possibility that Wittgenstein's later philosophy leans towards a form of idealism underpinned by "collective" or "aggregative" solipsism. The consensus here is that it does not, that Wittgenstein's statement in *On Certainty* (quoted by Norman Malcolm) that it "is always by grace of nature that one knows something" must be taken at face value; but it is revealing how damaging several authors feel the charge would be if proved.

In so far as the contributors are in dialogue with each other it is over this fairly narrow terrain. Other lectures have distinct merits but are isolated in comparison. They include expositions of Fichte and Schopenhauer, two essays on Hegel (one, by W. H. Walsh approaching the second of my categories by examining the "love/hate relationship" between Hegel and Kant), and an excellent unpacking by Richard Norman of the potential implications of Marx's first thesis on Feuerbach. In this he demonstrates how effectively Marxist theory has come to recon-

sider Kant and Hegel, giving the lie to the traditional assumption that a materialist epistemology necessarily invalidates Marx's statements about the positive role of idealist theory in practical activity. Another interesting rehabilitation occurs in the discussion of Wittgenstein, as A. R. Manser and Anthony Palmer exhume F. H. Bradley's doctrine of internal relations, showing that what has come to be discredited metaphysically may make sense logically as a system of symbols and signs.

Considering the nature and range of these issues prompts two further conclusions. First that we have here, with isolated exceptions, ideal-typical cases of the way in which philosophers mine the history of philosophy in search of corroborative or other evidence with which to rehearse their present concerns. In this sense the title of the collection is misleading: reading it from cover to cover gives no real impression of the past career of idealist theory. Similarly, philosophy can be an extraordinary insular, even nationalistic activity. Again with honourable exceptions, the collection by-passes much of interest not only in recent Continental philosophy but also the impressive idealist tradition in the United States.

David Watson
Dr Watson is dean of the modular course at Oxford Polytechnic.

Moral realism

David Hume: common-sense moralist, sceptical metaphysician
by David Fate Norton
Princeton University Press, £17.50
ISBN 0 691 07265 5

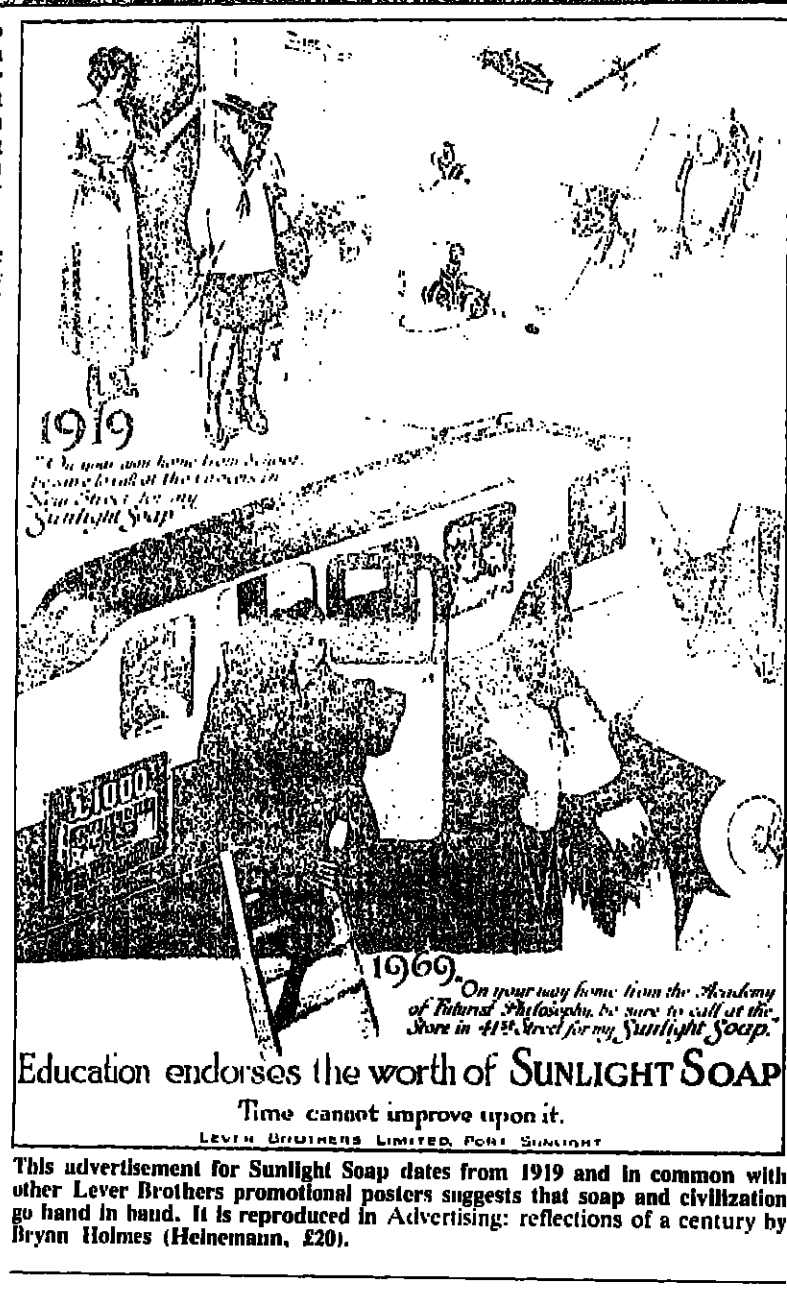
Traditional accounts of Hume's philosophy have tended to fall into one of two main camps. Following the interpretation given prominence by Thomas Reid, some commentators have treated Hume as primarily a sceptic, who sought to show the lack of justification for a wide variety of common beliefs - in God, in miracles, in objective moral values, in the external world, in induction, and so on. A more recent interpretation, stemming from the work of Norman Kemp Smith, emphasizes Hume's interest, not so much in questions of justification, as in the issue of how our beliefs are formed, are reinforced, how they change, and affect each other.

What the two traditions share is the assumption that no distinction needs to be drawn in this respect between the primary concerns of Hume's epistemology on the one hand, and of his moral philosophy on the other.

It is this shared assumption that is rejected by Professor Norton. Norton argues that Hume's philosophy developed in response to two separate intellectual pressures, one moral and the other epistemological. The moral pressure arose from the need to combat the moral scepticism represented by Hobbes and Mandeville. Norton accepts the Kemp Smith thesis that in meeting this moral scepticism Hume was heavily influenced by Hutcheson. But he gives a distinctive twist to this thesis by arguing that Kemp Smith completely misunderstood Hutcheson in attributing to him the view that morality is non-rational. On the contrary, claims Norton, Hutcheson is a moral realist, and under his influence Hume too developed a realist account of morality.

Hume's metaphysical views developed under a different impetus and in a different direction. Here Norton thinks that the evidence is more in favour of the Reid view: Hume's speculative philosophy was sceptical, and Kemp Smith was wrong to say that Hume denied that reason has any influence in the formation of our beliefs. It does have some influence, even if there are beliefs which, however irrational, our human nature does not allow us to abandon.

Given Norton's view of Hume as a sceptical metaphysician and moral realist, one would expect him to



This advertisement for Sunlight Soap dates from 1919 and in common with other Lever Brothers promotional posters suggests that soap and civilization go hand in hand. It is reproduced in Advertising: reflections of a century by Bryan Holmes (Heinemann, £20).

have some lengthy discussion to sort out the different senses of the key terms "sceptic" and "realist". There is in fact no extended consideration of realism (the term does not even appear in the index); and although Norton says a good deal about scepticism, the discussion is of a very uneven quality. It is alarming, for example, to read early on, the wildly inaccurate statement that most contemporary philosophers think of a sceptic as someone who believes that "those matters that are not certainly true are false" (page 10). It is difficult to think of anyone in the history of philosophy, let alone most contemporary philosophers, who has meant that by the term "scepticism"; and one may justifiably feel that an author who is so misinformed about scepticism is likely to have trouble unpicking the many threads in Hume's complex attitude to it.

It is of a piece with this confusion that Norton later contrasts moral philosophy with epistemological scepticism (as if there were some form of non-epistemological scepticism); and that he discusses at some length the question of whether scepticism is a "negative" doctrine (as if a question so loosely posed could have any interesting answer). Again, commenting on Hume's scepticism, Norton says, on page 201, that those who believe (wrongly) that Hume denied the existence of an essential self have made the mistake of inferring this from the (true) premise that Hume denied that we can have any knowledge of an essential self. Since Hume explicitly denies that there is an essential self, Norton must have badly misread both Hume and his commentators on this point.

When we turn to Norton's discussion of Hume's alleged moral realism, we find similar confusion. For example, in defence of his claim that Hume was a moral realist, he writes that Hume

... holds that vice and disapprobation are not identical, and that moral qualities are not merely sentiments but, rather, the objective correlates of sentiments (page 111).

But the question is not whether vice and disapprobation are identical: none of Hume's commentators has attributed that (absurd) view to him. The question is whether the (sup-

posed) belief that something is vicious really no more than a feeling of disapprobation towards it. And the fact that a vicious action may cause the feeling of disapprobation, which Norton takes to show that Hume is not a subjectivist, is compatible with a subjectivism of the "belief = feeling" kind. What Norton would need to show is that in Hume's view, the objective correlates of the moral feeling must themselves be described in moral terms, and that any moral descriptions of them (as vicious or virtuous, for example) would not be merely derivative from the feelings of (dis)approbation that they cause in us. But Norton seems not even to be aware of the distinction between these two positions.

In general, then, this is a disappointing book. The moral which it unhappily illustrates is the impossibility of writing a satisfactory piece of history of philosophy without more philosophical competence than Norton here displays.

Nicholas Everitt
Nicholas Everitt is lecturer in philosophy at the University of East Anglia.

answering recurring questions - almost as if the philosophers had participated in one exciting session. Despite the anachronistic that arise, this is a good way to introduce students to the subject. My main reservation is that the book gives too much emphasis to the single issue of the emerging distinction between necessary and factual truth, and that a particular view is supported: Trusted conveys the impression that there is a right answer here, that those who make such a sharp distinction are on the side of the angels. This issue simply is not closed. Some factual truths might be thought to be nomologically necessary, and the distinction between nomological and logical necessity is still very much open to dispute.

To be introduced to epistemology by D. J. O'Connor and Brian Carr is doubtfully not to meet the Greats. Their book covers the main topics in the theory of knowledge: scepticism and certainty; belief and knowledge; perception; memory; truth; analysis; necessity, and the a priori. Although passing mention is made of the doctrines of Kant, Descartes, Hume, and Leibniz, far more space is devoted to not-so-recent modern theorists.

The anti-sceptical argument that comes up for discussion (as in Trusted's book) is that of Norman Malcolm. John Cook Wilson's and R. B. Braithwaite's views on belief receive extended criticism; only D. W. Hamlyn and J. L. Austin represent post-Wittgensteinian philosophy of perception. The authors' own view of belief as a state is compared only to a similar view put forward some time ago by David Armstrong. No material on analyticity or necessity is included subsequent to the Quine-Strawson-Grice exchange of 26 years ago.

With a few exceptions, the book could have been written at least five years ago. I can see the least fit of a book like Trusted's - which could have been written in the main nearly two hundred years ago. But if a book is not to confine itself to the recognized classics and intends to examine some more contemporary material, why the preoccupation with the period pieces of nearly a quarter of a century ago, to the neglect of a great deal of interesting and more recent work? An examination of Peter Unger's *Ignorance* and Nicholas Rescher's *The Coherence Theory of Truth*, for example, would have made the chapters on scepticism and truth respectively far more interesting than they are. The authors' views on belief as a state would certainly have been enriched by reference to some of the recent discussion of functional states in the philosophy of psychology.

The scope of O'Connor and Carr's book is far too wide for its 191 pages, and this often leads them to busy criticisms that miss their mark. For example, how can it be a fault in Tarski's theory of truth that it does not provide a non-circular criterion of truth? And it is not only the criticisms of the views of others but also the suggestions of their own which are too brief.

How can their suggestion for resolving the Gettier paradox help good this defect by indicating that the belief must be based on something relevant to its truth, but - to use Gettier's example - how could "Jones owns a Ford" fail to be relevant to the truth of "Jones owns a Ford or Brown is in Barcelona" since the first entails the second? I suspect that if one pushed them on the sense of "relevance" here, it would collapse back into a causal condition very much like the one that they rejected.

They argue for a representative theory of perception. They agree with Locke that secondary qualities are only in the mind, and they accept the standard arguments about the relativity and dependence of the sensed qualities as establishing this. But they give us no clue about how they would deal with Berkeley's complaint against the Lockean doctrine that those arguments, if they really do work for the secondary qualities, work equally well for the primary ones.

BOOKS

BIOLOGICAL SCIENCES

Clearing away the rubble

The Foundations of Ethology
by Konrad Z. Lorenz
Springer, DM48
ISBN 3 211 81623 2
Ethology: its nature and relations with other sciences
by Robert A. Hinde
Oxford University Press and Fontana, £9.50 and £2.95
ISBN 0 19 520370 4 and 0 00 636237 0
Ethology: the mechanisms and evolution of behaviour
by James L. Gould
Norton, £11.95
ISBN 0 393 01488 6

Although there had been a keen and widespread interest in the natural history of animal behaviour during the nineteenth century, ethology did not really come into being until the turn of the century, with the work of Charles Whitman and Oskar Heinroth. Whitman and Heinroth realized that the behaviour of the birds they were studying (pigeons and ducks respectively) contained specific, easily recognizable movements that were as much proper objects for scientific investigation as, for example, the birds' bones or kidneys.

It was left to the giants of early ethology, Konrad Lorenz and Niko Tinbergen, to exploit this insight. Working mostly with birds, fish and insects, they revealed an almost machine-like fixity in much of the behaviour they observed. By careful observation, and, in Tinbergen's case, by beautifully designed experiments, they were able to show that the responses of many animals to their environment are, in many instances, highly selective. In addition they devised simple but powerful models, invoking special triggering mechanisms, and "energies" devoted to driving specific behaviours, to explain how the behaviour that animals performed was governed not only by their surroundings, but also by their inner motivational state. Another hallmark of their work was a deep interest in the function of the behaviour they observed in the animal's everyday life.

Inevitably, many of the ideas of early ethology were unable to cope with the complexities of animal behaviour that were later discovered. Animals, it turns out, can be very flexible in their responsiveness to stimulation, and their tendencies to perform behaviours can fluctuate over time and with circumstances in ways that just cannot be explained by simple models of behaviour-specific energies. The functions of many complex features of social behaviour, moreover, seemed inexplicable in terms of Darwinian individual fitness. Today's ethological models of motivated behaviour are therefore elaborate, multi-component affairs, the neurobiological bases for selective responsiveness to stimulation in the animal kingdom are being revealed exceedingly diverse, and our explanations of the function of behaviour now take into account the subtleties of kin selection and game theory.

Despite its present-day sophistication, the pre-occupations of contemporary ethologists are much the same as those who founded the subject. It is particularly fascinating, therefore, to compare the books of three ethologists who come from different generations of ethologists. Lorenz, of course, is one of the founding fathers of ethology. Robert Hinde is one of the most distinguished of the generation of ethologists who have built upon, and transformed, the foundations laid by the pioneer ethologists. James Gould belongs to the present generation of younger ethologists -

inheritors not only of Hinde's 1970 synthesis of ethology and comparative psychology, but also of the 1970s boom in behavioural ecology. In their books, Lorenz and Hinde have written personal appraisals of the state of modern ethology, the former disenchanted, the latter cautiously optimistic, and Gould has produced an introductory text for students.

In his preface, Lorenz wastes no time in attacking contemporary ethology. We modern ethologists are likened to the branches of a colony of coral, who are producing "quite a lot of rubble" (undeniably true) because we have lost contact with our subject's foundations (arguably false). Like an Old Testament prophet, Lorenz sets himself the task of ridding us of it.

Vigorously spurning virtually all recent ethological work, he takes us back to the origins of ethology, and tries to persuade us that the ideas that formed the historical foundations of ethology should continue to form its conceptual foundations. As a result, reading the book is rather like visiting an ethological museum. Yes, there is the original Lorenz hydraulic model of motivation. And there, next to it, is the more advanced model with unspecified readiness-releasing attachments. Over here, action-specific potentials are busy driving their motor patterns again, and nearby you can see a special exhibit of the fight between reflexive supporters of the reflexive and the spontaneous nature of animal actions.

Although all of these issues were vitally important during the development of ethology as a young discipline, Lorenz will surely only persuade us that they are still important if he discusses the results of modern ethological research, and shows how these results can best be interpreted in terms of these early concepts. This he simply does not do. Rather, he contents himself by and large with a restatement of early ethological work, supported by early ethological evidence. We do not nowadays talk about action-specific potentials, hydraulic models of motivation (whether or not they are "thought models" as Lorenz calls them), or instincts, not because we have forgotten about them, but because we find that they have stopped being useful to us, and so have abandoned them.

At last, I thought many of them had been abandoned until I turned to Gould's book. Although there are some marvellous things in this text-book, conceptual rigour is not one of them. This comment applies especially to Gould's treatment of innate and learned behaviour. Right at the beginning of the book Gould writes: "When the information crucial to its well-being is too complex to be stored word for word in the genes it cannot be predicted in advance, the animal is born instead with detailed instructions about how to find out what it needs to know. This reservoir of information and instructions is, of course, *instinct*."

Note the "of course", as though this were self-evident. Elsewhere, Gould uses the term *instinct* (or *instinctive*) to mean a variety of things, including behaviour that is programmed in the genes, non-



Leopard frog, a common frog in North America, jumping into water. Taken from Caught in Motion: high-speed nature photography by Stephen Dalton, published next week by Weidenfeld and Nicolson at £10.95.

learned, involuntary, wired-in, species typical, or internally-driven. When he criticizes those who object to the term *instinct* he does not distinguish, as he should, between those early psychologists who were reluctant to admit that a behaviour could develop in a young animal without it being learned on the one hand, and on the other those who argue that it is simply unhelpful, when we investigate the mechanisms of behavioural development, to resort to a crude dichotomous classification of behaviour as innate or learned.

The phrase "the classic continuum from nature to nurture" that Gould tosses in on page 8 does not really help either - implying as it does that some behaviours are determined by a little bit of nurture and a lot of nature, whereas others receive contributions from nature and nurture in different proportions. Later in the book there appear mysterious phrases like "plastic, instinct-free learning" and "the genetic programming of motivation". Given that Gould returns repeatedly during the text to the issue of innateness and learned behaviour, a greater clarity about the underlying issues would have been appreciated.

The book has several other unsatisfactory features. In order to improve readability, Gould has chosen to avoid citing the authors whose work he is discussing. Certainly, the book is readable, and this is one of its strengths, but the price that is paid is a heavy one. Time and time again, the author's account of a body of complex research consists of no more than a few bland sentences, with no mention of who did the research, and with little detail of what they found. The section on visual processing, for example, suffers heavily from this approach. An important experiment on the effects

of early visual stimulation on the orientation of receptive fields in the kitten's visual cortex is referred to solely as "the garbage can experiment", with no mention of the authors, Blakemore and Cooper, either in the text or in the bibliography. Although this is a long book (over 500 pages), some of the topics that are usually thought of as central to ethology, especially among birds and mammals, are dealt with very briefly indeed. The motivation chapter is a mere ten pages long, half of which is devoted to rhythmicity and internal clocks, and the other half to a critique of Lorenz's hydraulic model of motivation. Although the shortcomings of Lorenz's model are hinted at, few are spelt out in detail. There is no mention of Hinde's important theoretical papers on motive and energy models of motivation (written at a time when, according to Gould, ethology had all but withered away), nor of the more recent important work of McFarland's group in Oxford, or indeed of any modern motivational work at all.

Finally, on the debit side, the book is full of curious, eyebrow-raising assertions. I was surprised to learn, for example, that in Britain blue tits no longer steal cream from milk bottles because of the demise of the home delivery of milk. It is especially sad that the book contains so many imperfections because it also contains much that is truly excellent. The author has clearly gone to a lot of trouble to make his material accessible to students. Much of the writing is superbly lucid, especially on invertebrate behaviour. The illustrations throughout the book are splendid; and there are helpful collections of references, nicely-judged questions to tease the reader's mind at the end of each chapter, and useful little essays on topics as

diverse as game theory and computer programming, inserted in parallel with the main text. A pity, then, that this book's many attractive features are offset by so many blemishes. The reader who wants to find out why it is so difficult to integrate modern ethological research findings into Lorenzian models of motivation, or who wants a clear discussion of the theoretical issues at stake when authors such as Gould talk about learned and instinctive behaviour, need go no further than Hinde's excellent book.

In the first part of his book, Hinde discusses the four fundamental kinds of question that ethologists, following Tinbergen, ask about behaviour - questions of immediate causation, of development, of function, and of evolution. With respect to each question Hinde scrutinizes with his usual perceptiveness key concepts that form the core of ethology - both already established concepts such as fixed-action patterns and the learning-instinctive dichotomy, and newcomers, such as cost-benefit analysis, optimality, and the state-space approach to motivation.

In the second part of the book, Hinde demonstrates how fruitful ethology can be when it works in conjunction with neighbouring biological disciplines, such as neurophysiology, behavioural endocrinology and experimental psychology. Throughout this section Hinde shows how much greater meaning can be attributed to the laboratory findings emanating from these other disciplines if the ethologists' knowledge of repertoires and methods of behavioural analysis are brought to bear upon the problem.

In the final section of the book, Hinde discusses the relationship of ethology with the human social sciences including anthropology, sociology and developmental psychology. In urging the benefits of interdisciplinary cooperation Hinde adopts a benign attitude towards those who have become involved in the past in fierce interdisciplinary controversies over behaviour, but rightly encourages present-day ethologists to adopt a greater humility and willingness to learn from their colleagues from other disciplines.

Throughout, the book is written with Hinde's usual erudition and immense knowledge of the literature. There is no glossing over of complexities, or false raising of hopes for easy solutions. Much of the writing is austere and compressed, but it is interspersed with nice historical essays on leading figures in the development of ethology.

Although this is not the kind of book to be read by a newcomer to the social or biological sciences, I hope that it will be widely read, not only by ethologists, but also by those many people working in the adjacent disciplines that Hinde mentions. Ethologists may continue, as Lorenz says, to produce "quite a lot of rubble", but the amount that they produce is likely to be substantially reduced if they read this book.

Neil Chalmers
Neil Chalmers is senior lecturer in biology at the Open University.

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BOOKS

BIOLOGICAL SCIENCES

Taxonomic questions

An Introduction to Plant Taxonomy, second edition

by C. Jeffrey

Cambridge University Press, £12.50 and £5.95

ISBN 0 521 24542 7 and 28775 8

An Introduction to Mathematical Taxonomy

by G. Dunn and B. S. Everitt

Cambridge University Press, £15.00 and £5.95

ISBN 0 521 23979 and 28388 4

It is a very unusual circumstance for the same publisher to offer two similar sized introductory textbooks on taxonomy in the same season. In content and approach the two books are, however, very different.

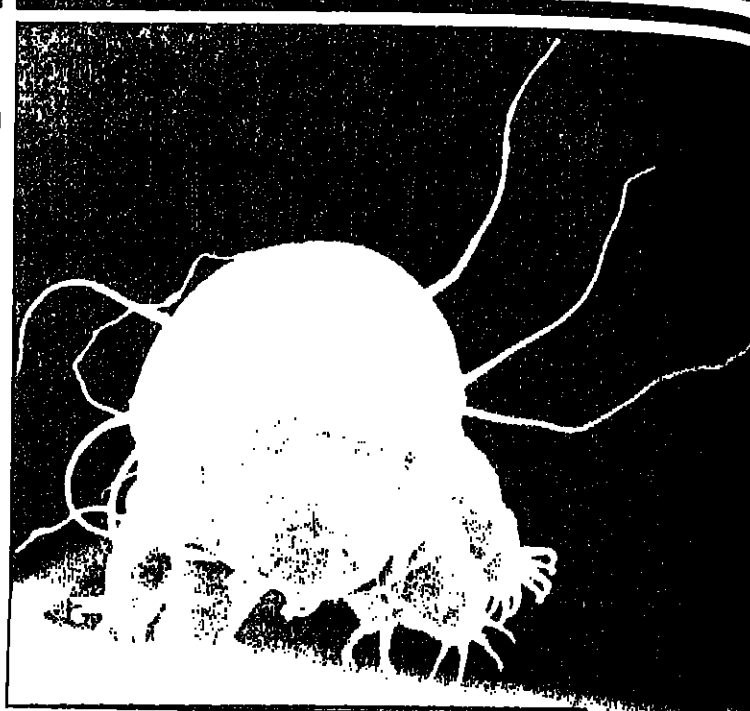
Jeffrey's book is a revised version of his 1968 work and is intended as a simple introduction to what he calls the "classical core" of plant taxonomy — how plants are classified and named. Everitt and Dunn provide an introduction to mathematical techniques useful in taxonomy, aimed at biologists and others. They adopt a non-nonsense approach to taxonomy and endorse the view that one does not judge the classificatory method on the *a priori* beliefs of the taxonomists, but on the usefulness of the results.

It is important in an introductory work to include simple but accurate definitions of key terms and concepts. Everitt and Dunn manage this much better than Jeffrey whose definition of classification, for example, applies rather better to identification, and who then goes on to state that identification is the basic process in classification — which is, at best, misleading. Neither book manages to get phenetic quite right — it does not refer to similarities of phenotype (Dunn and Everitt) nor to using data "produced by the study of the living phenotype [*sic*] by all possible methods" (Jeffrey). It is not derived from phenotype (as opposed to genotype) and may include characters of the genotype. The contrast is with phylogenetic as Dunn and Everitt rightly emphasize later on in their book.

The first chapters of Jeffrey's book, using examples such as green-grocers' stalls and sacks of bricks and coal, introduce the ideas of classification and of discontinuity of variation. His choice of *Homo sapiens* as an example of a species is, however, unfortunate. What, asks Jeffrey, does man tell us about the nature of the species? Alas, the answer is nothing, since there is no other species today placed in the genus *Homo*, so that the concept of *Homo sapiens* as a species is purely arbitrary. Man can only be compared taxonomically at generic (or family) level. The species *Homo sapiens*, he tells us, is reproductively isolated from all other species, but that is true of most species belonging to different genera (or families, orders, and so on). This tells us nothing about the nature of species within their own genera, which is what matters in practical terms.

The longest chapter in the book is devoted to nomenclature, and it is well presented. The use of keys is covered in another chapter in a rather laboured manner, followed by a sketchy account of systems of classification and a chapter oddly entitled "Taxonomy our contemporary". The book ends with an extensive book list (marred by several misprints) with pithy (though not always apposite) comments on most works. It is not clear what use the reader of this book is likely to make of much of this list, nor of the strange outline classification of plants that makes up appendix C.

Dunn and Everitt provide an admirably clear and balanced account of numerical taxonomic procedures including character coding, measurement of similarity, principal



Scanning electron micrograph of *Echiniscus blumi*, a land-dwelling water bear from Auburn, Placer County, California. Its movable claws enable it to cling to moss and lichens. Bar represents 0.5 millimeters. Taken from *Five Kingdoms: an illustrated guide to the phyla of life on Earth* by Lynn Margulis and Karlene Schwartz, published by Freeman at £17.30.

components analysis, multidimensional scaling, cluster analysis, identification and assignment techniques, and the construction of evolutionary trees. A valuable feature throughout is their remarkably unbiased assessments of the relative values of numerical and traditional approaches to taxonomy and their recognition that there are no simple answers to many of the questions that taxonomists pose, such as what measure of similarity or which algorithm for cluster analysis should be used to obtain the "best" results.

I strongly recommend this excellent, thoughtful book to all biologists interested in taxonomy. Although it does not address itself to all the kinds of problem that arise in the practice of numerical taxonomy, it does manage to cover a remarkable number and it often refers the reader to other literature for further details or discussion. Although Jeffrey's book, aimed at pre-university level, has some good things in it, I cannot recommend it without reservations as a lucid introduction to the subject.

V. H. Heywood

Professor Heywood is head of the department of botany at Reading University.

Elementary genetics

Population and Evolutionary Genetics: a primer

by Francisco J. Ayala

Benjamin/Cummings, £9.75

ISBN 0 8053 0315 4

Professor Ayala tells us that his book is intended to provide an elementary treatment of population and evolutionary genetics, a fair and accurate description of his approach.

The book begins with a chapter on basic genetics, then discusses the genetic structure of populations, processes of evolutionary change, natural selection and inbreeding, coadaptation and geographical differentiation, and concludes with a chapter on speciation and macroevolution. The exposition and style throughout is very clear, and considerable trouble has been taken to help the reader with algebraic derivations. Every principle is illustrated with an example, many of which are taken from Professor Ayala's own work or from related fields.

Unusually for a book at this level there is a whole chapter devoted to qualitative characters which, on the whole, is as well done as other topics in the book. This chapter, however, contains more errors of definition and emphasis than the others. For example, the reader is told that "the occurrence of continuous variation is due to (1) interactions between different genes and (2) interactions between genes and the environment".

This is simply not true, for the simple models in quantitative inheritance assume independent action of the genes both with respect to one another as well as to the environment; that is, the term "interaction" in this context has a specific and technical meaning. Later on, this mistake is partly corrected for we are told that "Yule suggested that several gene loci each having a small effect could account for quantitative variation"; and elsewhere in the book the word "interaction" is used correctly to denote a non-additive relationship between a pair of effects.

A second error of definition is to be found on page 167 where the reader is told that " V_G = the fraction of the phenotypic variance that is due to genetic differences among individuals", which is actually heritability; V_G is simply the variance that is due to genetic differences among individuals.

But perhaps the most serious error is to be found in the otherwise excellent section in this chapter on heritability in different populations in which the author quite rightly emphasizes that estimates of heritability are only strictly valid for a given population growing in a given environment. The trouble is that a thought experiment involving cuttings of *Potentilla glandulosa* is used to illustrate this important point, whereas the concept of heritability, as the term suggests, is restricted to sexual reproduction. The notion that one can estimate heritability from transplant experiments is an old idea which I, at least, thought had been buried years ago. Thus, although Professor Ayala is to be commended for devoting a whole chapter to quantitative inheritance in an elementary book on population genetics, I wish that he had got it right!

The book begins with a chapter on elementary genetics and ends with an appendix on probability and statistics. Although it is true that an understanding of population genetics cannot be achieved without knowing something about genetics and statistics, it is doubtful whether these subjects, particularly the latter, can be dealt with satisfactorily in this way. Surely the time has now come when an author can reasonably expect that the student has acquired a knowledge of both basic genetics and statistics before starting on a book of this kind?

Despite these errors, however, this book is better than others of its type. It is a pleasure to read, and effective use has been made in the tables, diagrams and figures of various shades of brown; and each chapter ends with a selection of problems to help the reader consolidate his knowledge. The book should form a useful addition to the list of elementary texts on population and evolutionary genetics.

Michael Lawrence

Michael Lawrence is senior lecturer in genetics at the University of Birmingham.

BOOKS

BIOLOGICAL SCIENCES

Mostly about variation

Neo-Darwinism

by R. J. Berry

Edward Arnold, £2.65

ISBN 0 7131 2849 6

The original Darwinian concept of evolution has itself undergone phases at important evolutionary stages since Wallace and Darwin presented their joint paper nearly 125 years ago. Within the all too obvious confines of 63 pages, Professor Berry has summarized admirably the development of the current theory, and done so in a fashion well-suited to a non-specialist readership.

In Professor Berry's words his book is "mostly about variation". It is also very much a defence of neo-Darwinism based on the interesting thesis that different episodes of doubt have arisen — he claims, in every case — because of confusion about the nature and maintenance of inherited variation. One might question whether that can be said of many recent critics (the creationists except, who are confused on most issues), but the author argues persuasively for his thesis as applied to earlier episodes of doubt.

Four such periods are recognized: objections raised in Darwin's time, arguments between the biometricians and Mendelians earlier this century, the rift between paleontologists and geneticists in the early 1930s (a debate which led to the neo-Darwinian synthesis) and, in this decade, disputes between selectionists and neutralists.

The fifth episode recognized by Professor Berry is still with us, and its component critics are still active. Regrettably they receive the least attention and their ideas are treated almost dismissively. In so short a book it is a pity for nearly a page to be lost on a somewhat confused and ill-informed attack on cladism, a taxonomic system which is not, and never was concerned with evolutionary biology *per se*. Ironically, a cladistic classification is more likely to approach the "one true phylogeny" than is the classification produced by the so-called evolutionary schools of taxonomy. The space devoted to cladism could have been better used to expand on a rebuttal of present-day philosopher critics of neo-Darwinism, especially to their charges of "tautology and excessive dogmatism", criticisms which are not really answered here. Essentially the book is concerned with the other debates, the genetic background to the disputes, and to their resolution (at least as seen through the eyes of a committed neo-Darwinian).

As a student of evolution long concerned with problems of speciation, presumed adaptations and macroevolution, I read Professor Berry's accounts of these subjects rather hypercritically, on the whole he provoked little irritation. I was, however, puzzled by certain remarks and interpretations relating to these important evolutionary concepts. For example, we are told that genetic drift can be demonstrated under laboratory conditions but that no good natural examples have been established. It is then argued that a particular form of drift, the founder effect, has been significant in evolution, and that it "is the most drastic way of changing gene frequencies that there is". One is left wondering, however, if natural examples are known especially when the accompanying figure is a purely diagrammatic one. Shortly after this discussion on drift, natural selection is described as "by far the strongest agency changing gene frequencies". Since natural selection lies at the core of neo-Darwinism, those two statements would seem to demand further discussion, but none is forthcoming.

Structurally, a centriole is indistinguishable from the basal body of a cilium or flagellum — a resemblance which has led to suggestions that the one was derived from the other in evolution. Again, we do not really understand how the two are related or how either initially came into being.

Dr Wheatley is therefore correct to describe the centriole as an "enigma". He has brought together in his book some of the existing knowledge about this structure. On the whole, he emphasizes the role of centrioles in generating cilia, rather than their contribution to mitosis; there is a good deal about centriole fine structure.

Several good reviews on this subject have been written in recent years, and I do not believe that this book adds much to them. The early literature is not well covered and the relation of work on centrioles to wider areas of cell biology is not really well handled. Indeed, judging from his text, the author does not have a complete intellectual grasp of his subject.

Dr Wheatley writes a rather laboured prose, with startlingly frequent lapses in grammar and syntax. The book has not been carefully proof-read. The subject index, which runs to two pages, is inadequate. There is, however, a bibliography containing about 450 references. The publishers have chosen to set the book in an unpleasant typeface and print it on rather thin paper. Considering that there are rather few illustrations, the price is outrageous. Suitably condensed, the material would have made an acceptable review article; as a book I imagine that few librarians will feel it worth about forty pounds.

A. V. Grimstone

A. V. Grimstone is lecturer in zoology at the University of Cambridge and editor of "Journal of Cell Science".

Passing mention is made of evolution above the species level. Is there really such a phenomenon? A genus is a group of related species, a family a group of related genera, and so on. Does not this progression boil down to speciation and character evolution at the species level? Professor Berry may disagree, but many would consider it a point worth discussing since neo-Darwinism is supposedly concerned with processes involved in phylogeny as well as with fine-tuning at intraspecific levels, and it is a point which troubles not a few contemporary critics of neo-Darwinism.

These various criticisms aside, Professor Berry has written a good introduction to the basic principles of neo-Darwinism and above all an intriguing guide to the evolution of the current theory.

P. H. Greenwood

P. H. Greenwood is a senior principal scientific officer in the department of zoology at the British Museum (Natural History).

Enigmatic organelle

The Centriole: a central enigma of cell biology

by D. N. Wheatley

Elsevier Biomedical, Dfl.190.00

ISBN 0 444 80 359 9

Recent progress in cell biology has been so impressive that there is a tendency, sometimes, to underestimate the significance of currently unresolved problems. There are indeed grounds for supposing that many of the remaining questions will be resolved by the purposeful application of existing techniques and concepts. However, there are also areas which look likely to be more troublesome. One of these is morphogenesis; the manner in which cells and their parts come to have specific forms.

Another is the evolutionary history of cells. The subject of Dr Wheatley's book illustrates the deficiencies in our understanding in both these areas.

A centriole is a very small structure found in many, but not all cells, lying close to the nucleus. Centrioles come in pairs, and when the cell divides the two separate and come to lie at the poles of the mitotic spindle — the delicately organized structure which the dividing cell produces for the purpose of distributing its two sets of chromosomes to the two daughter cells which are to be formed.

Centrioles have an intricate and characteristic structure, which itself poses a morphogenetic problem (for we have almost no idea how they are generated) and they also seem to play a part, in some cells at least, in shaping the spindle and in determining the plane of cell division. How they do either of those things is still obscure.

Centrioles can also generate cilia.

Structurally, a centriole is indistinguishable from the basal body of a cilium or flagellum — a resemblance which has led to suggestions that the one was derived from the other in evolution. Again, we do not really understand how the two are related or how either initially came into being.

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A. V. Grimstone

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A tangled bank

The Masterpiece of Nature: the evolution and genetics of sexuality

by Graham Bell

Croom Helm, £25.00

ISBN 0 85664 753 5

Evolutionary biologists find sex a subject of enduring interest. How, ever, the source of their interest is at first sight surprising because, in their eyes, sex is simply a process which leads to the shuffling of genes of one individual with those of another. Thus, when they sit at their desks and think about the role of sex in the living world, they find it very difficult to see why it should be there at all.

One of the reasons for this is that an animal or plant which survives to an age when it can reproduce, presumably has a set of genes reasonably well suited to the prevailing environmental conditions. It seems to make little sense that these genes

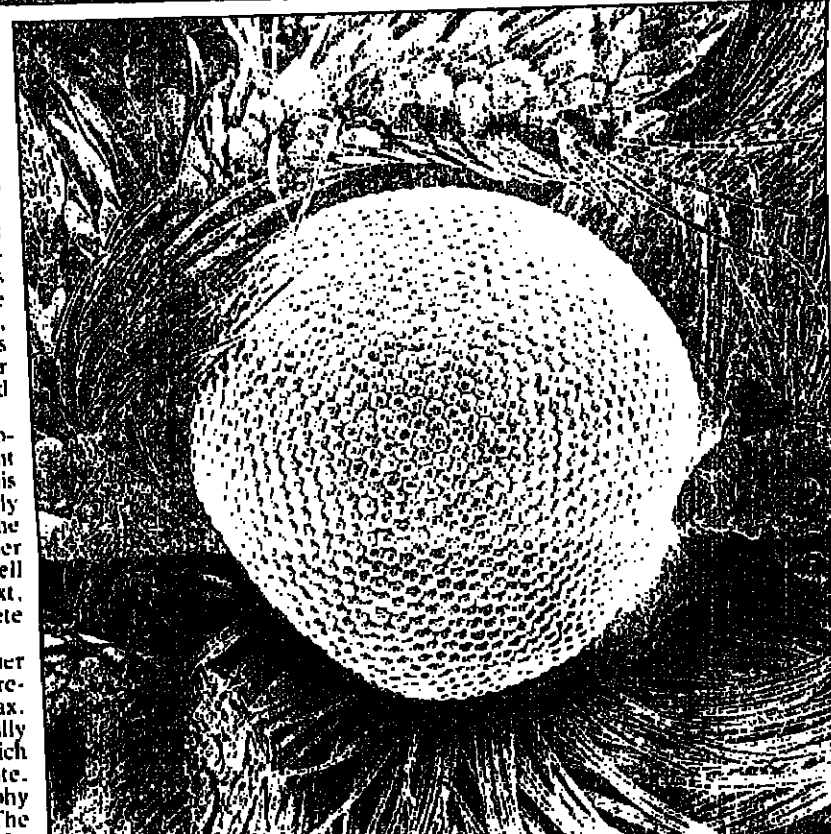
well become important when population density is high and many of the patches are full, thereby generating an advantage for sex.

My main reservation about the book is that, rather than the dispassionate evaluation of the theories that it purports to be, it sometimes reads more like a work of advocacy for the "tangled bank" theory. As a result of this, Bell is sometimes less than fair to other theories. A case in point is his treatment of patches which differ through time as well as space, which he represents with temporal variation only. Another example is his test of whether it is interactions with individuals of the same species or other species that generate the advantage for sex. A good way of assessing this would be to see what happens to sex in communities containing many different species, each at low density, where interactions between species would be more intense than in communities within species. Indeed, he does mention this, but fails to point out that sex occurs widely in such communities.

The debate on the evolution of sex is not as nearly resolved as one might judge from reading this book. Nevertheless, it contains much of interest, and will undoubtedly help to fuel the debate for some time to come.

Richard Law

Richard Law is lecturer in botany at the University of Sheffield.



Scanning electron micrograph of the eye of diamondback moth, magnified about 180 times. Taken from *The Grand Design: form and colour in animals* by Sally Foy and Oxford Scientific Films, published this week by Dent at £12.50.

well become important when population density is high and many of the patches are full, thereby generating an advantage for sex.

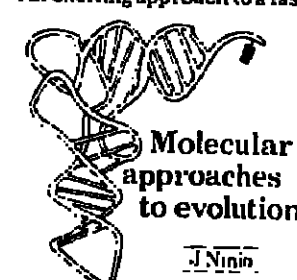
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BOOKS

BIOLOGICAL SCIENCES

Flights of fancy

Darwin to DNA, Molecules to Humanity
by G. Ledyard Stebbins
Freeman, £21.80 and £10.50
ISBN 0 7167 1331 4 and 1332 2

The famous geneticist Theodosius Dobzhansky once remarked that "nothing in biology makes sense without evolution". Why then is it so difficult to find an absorbing non-technical account of evolution which can safely be recommended to people with no formal training in biology?

There are many facets to this problem. One is that many of the books which were once used for introducing the layman to evolution are now as redundant as the dinosaurs they describe. This is because they have been overtaken by recent advances in our understanding of evolutionary processes. Another is that many people's motives for mastering the basics of evolution stem from self-interest: mankind evolved, and the study of evolution might provide insights into the human condition.

G. Ledyard Stebbins' latest book is an attempt to provide such a general account of evolution. Stebbins has had an outstanding career as an evolutionary biologist whose expertise on plant breeding systems, evolution and taxonomy is probably unparalleled. He founded the department of genetics in the University of California at Davis and since his retirement in 1973 he has taught evolution to non-biologists. He writes with an easy forthright style and would, therefore, seem right for the task.

The book contains 15 chapters and has a distinct historical approach. It starts with a clear presentation of the important questions, reviews Darwinism and neo-Darwinism, and then traces the course of evolution from the origins of life through to man. It finishes with a series of chapters on the evolutionary biology of man, in which the importance of cultural evolution is reviewed, sociobiology is examined, and Professor Stebbins presents a very personal view of the study and course of written history.

The book contains a list of contents exciting and I looked forward to reading the book. When I had finished it, however, I had such a list of specific criticisms that it was hard to know how to classify them. I offer three headings: dogma, inaccuracy and confusion.

A good teacher does not present too many facts at once, but rather a framework upon which the student can build. Stebbins seems to believe that his own experience can best be communicated by developing a series of principles which recur in the study of evolution. His book contains a few such principles and these crop up in many different contexts. Unfortunately, exceptions do not seem to be permitted. For example, evolution is often thought to occur in quantum jumps followed by periods of stasis. This does not mean that evolution always follows that pattern, yet Stebbins uses the idea in the total absence of evidence in many cases; horses, primitive cells and human brains are all treated in this way. Such dogma is dangerous. We are told that biologists recognize four rules governing the evolution of life (I wish it were that simple), and the fourth rule is that "populations of organisms continually interact with their environments. When the interaction is harmonious, this balance can be maintained indefinitely, and evolution will not take place". Later on we realize that when evolution does take place then the balance has not been maintained and the interaction has not, therefore, been harmonious. The "rule" in this case is a tautology.

In many areas of evolutionary ignorance Stebbins constructs a jargon on which to hang his dogma. There are, apparently, three novel

human characteristics. They are "artisanshop, conscious time binding and imaginal thinking". These evolved for various reasons and led to the three types of discipline identified by western scholars - natural science, history and politics, and the humanities respectively. But how did they evolve? My own favourite is for imaginal thinking:

during the long night hours, someone would have to tend the fire and chase away predators that came too close. The survival of our tribe would depend upon the alertness of such sentinels. What would they do to keep themselves alert during the long night hours? They might invent simple games, they might look at the stars and imagine the form of familiar animals among the constellations, or they might try to imagine what animals were responsible for the moving shadows they saw from time to time. Under such conditions, the passage from the real to the unreal and imaginative would have been particularly easy. Furthermore, if the next day the sentinel told the tribe about the imagined danger from which he had rescued them, he might win approval from his superiors and advance his position in the tribe's hierarchy. In this way he would gain access to a larger number of females and spread his genes more widely.

On inaccuracy, Stebbins' treatments of primate social organization and the topic of sociobiology take some beating. Quite reasonably, chimpanzees are singled out for special treatment since they are probably our closest living relatives. Recent research has led to a radical reassessment of our understanding of chimpanzee social organization. Females and their offspring live in separate territories, several of which are enclosed within the home range of a group of related males. Stebbins

gives us a totally different and incorrect picture. And on sociobiology he writes about topics that he does not understand. He describes the concept of inclusive fitness as central to the science, yet he repeatedly defines it totally incorrectly ("the capacity of an individual to produce a maximum of vigorous, well-adapted offspring"). He also presents vague criticisms of named sociobiology theorists and models, he charges sociobiologists with ignoring the speed of cultural innovation, and he is wrong on so many counts that it is hard to believe what he has taken even a cursory glance at the relevant literature.

The book reveals confusion over many issues in contemporary evolutionary theory. We are told that many cases of gradual change are so slow in evolutionary time that they cannot have been caused by natural selection. I do not understand how such trends could occur, or why normalizing selection with a shifting mean, morphological variance would increase enormously. Another example concerns the level over which natural selection operates. Group selection is often invoked, particularly in an "explanation" of the evolution of harem-dwelling primates in arid environments. Males are the expendable sex, since they can die without loss to the reproductive efficiency of the species as a whole. That not only uses group selection as an explanation but reveals an ignorance of sex-ratio theory. Since every monkey must have a mother and a father, males and females are equally important in producing the next generation.

This book is an unfortunate aberration in Professor Stebbins' distinguished career.

Paul Harvey

Paul Harvey is lecturer in biological sciences at the University of Sussex.

Teutonic botany

Cryptogams cyanobacteria, algae, fungi, lichens
by Karl Esser
Cambridge University Press, £37.50
ISBN 0 521 23621 5

The major contributions made by German universities to botanical teaching and research in the latter half of the last century are well known. By the end of the century their influence was world-wide. The laboratories of Hofmeister, Sachs, de Bary, Pfeffer and Strasburger attracted students from all over the world.

Among these was S. H. Vines - who collaborated with T. H. Muxey (following the initial work of W. T. Thiselton-Dyer) in introducing "the new botany" (the "botanical renaissance", or the "cause" of its enthusiastic supporters) in 1875 as an integral part of the South Kensington courses for biology teachers. In 1876-77, Vines brought these laboratory classes to Cambridge - classes in which the microscopic examination of plants and experimentation played significant roles. The "type method" involving cryptogams, gymnosperms and angiosperms, was central to this new approach, in which reproductive species were studied both anatomically and from life-history viewpoints (with strong evolutionary overtones). An approach which became firmly established in British college and university departments.

The taxonomic background is somewhat conservative in approach, especially with the algae, and will puzzle students brought up on the post-1962 Christensen system. The terminology becomes somewhat unwieldy in places, for example, anisogameteogamy and gametogameteogamy. There are some surprising omissions; for example, there is no account of heterocystis, and no mention is made of the use of Indian ink for defining algal mucilage layers.

Although there is much to be said in favour of the emphasis placed on the fundamental importance of a sound knowledge of the cryptogams, students on what is often part of a general course would appreciate a paperback edition at a more reasonable price. As a laboratory book and a standard reference, however, its value is undoubted. The enthusiastic supporters of the "botanical renaissance" of the last century would regard this book as a worthy successor.

A. D. Boney

A. D. Boney is professor of botany at the University of Glasgow.

NOTICE BOARD

Forthcoming Events

"Social Democratic Interpretation of History" a seminar organized by the History Workshop, London to be held at the Black Horse pub, Ruislip, Place, London W1 on October 4 at 7.30pm. Further details from Jerry White, 59 Colindale Road, London E5.

A night history of the English armed forces by Dr Chris Dandridge of the University of Leicester for a course with the theme "Politics and public administration for the public" being run by the university's department of adult education. The course consists of 20 meetings held on October 13 and being held at Vaughan College every Wednesday evening starting at 7.30 and 9pm. Among the topics for discussion are the part played by the armed forces in British social history and the impact of warfare on British society during the past 200 years. For: £14.20. Enquiries to Dr Chris Dandridge, Secretary, Vaughan College, St Nicholas Circus, Leicester.

"Beatrix Webb: The Other Self" a public lecture by Elizabeth Longford sponsored by the London School of Economics and the Virago Press to celebrate the publication of volume two of the "Diary of Beatrix Webb" edited by Norman and Jeanne Webb. It will be held on October 14 at 6pm in the Old Theatre of the LSE, Houghton Street, London WC2.

A new place remain on a course for "New and Improved" Editors of Scholarly Journals" organized by the Primary Communications Research Centre, Leicester University, by both a search club of the Foundation in London on October 15. The course designed to cover the basics of journal editing, will include practical exercises and provide the opportunity for editors to discuss problems encountered in their work. Further information from Elizabeth Shaw, Primary Communications Research Centre, Leicester University, University Road, Leicester LE1.

Surrey University launches into the health business next month when it puts on a health fair under the title of "Living Well". The fair is to be held in the university sports centre from October 7 to 9 and has been organized in collaboration with the Canterbury and Thanet

Health Education Service. It will include information on diet, stress, exercise and other topics which affect health. An open lecture "Keeping an active body and a healthy mind" is to be delivered by Johnny Ball, the TV personality on October 8 and there is competition "Write a Health Slogan", aimed at schoolchildren.

A seminar organized by the Institution of Mechanical Engineers is to study in depth why industrial investment fails to attain its expected objectives on October 19 at 2.30pm, 1 Birdcage Walk, Westminster.

An education day has been organized by Bristol University Students' Union in conjunction with members of the education faculty for October 16 from 10am to 4pm in the Anson Room of the University of Bristol Union. The event is designed to provide a platform for a variety of speakers to discuss vital issues facing the education system in 1980s. Speakers are expected to include: Mr Phillip Whitehead, MP, Labour spokesman on higher education, Mr Ian Parry, chief education adviser for West Glamorgan, Ms Caroline Bona, secretary of the Comprehensive Schools Committee and Mr Michael SDP education spokesman. For further details contact Amanda Rigby, president, Bristol University Students' Union, Queen's Road, Clifton Bristol. Open to anyone interested.

"Museums in the Eighties", a talk by Sir Richard Cox - former director and secretary, Victoria and Albert Museum is to be delivered at a meeting of the Friends of the Girls' Public Day School Trust at Graycoats Hospital, Grey Coat School, London SW1 on October 16 at 3pm. Further details from the Honorary Secretary, The Friends of the GPDST, 26 Osceola Avenue, London SW1.

The Education and Training of Technician Engineers in mechanical Engineering is the theme of a seminar organized by the Institution of Mechanical Engineers and the Institution of Mechanical Engineers on October 20 at the latter's headquarters, 1 Birdcage Walk, London SW1. Sessions will include: "The Future of the Technician", "The committee for engineering in polytechnics" and "Why not engineers at 14". The conclusions of the seminar will be placed before the newly created Engineering Council. Further details from the secretary at the above address.

Prizes

British artists still have a chance to enter the Young Group art prizes 1982, competition to the end of the year. The prizes worth £5,000. For prizes of £250 each are also on offer to members up to the old painting and sculpture classes. Artists who are interested should apply to the Foundation of British Artists for a copy form. Entry for the 1982 competition is possible by submitting work to the selection committee. The following three societies: The Royal Society of Miniature Painters, Sculptors and Gravers and of Marine Artists and the New English Art Club. Results will be announced on January 19.

Courses

For the first time the University of Kent is offering a part-time course leading to a diploma in philosophy. The programme of three years duration starts this October. The nature of reality, it is hoped that the second "Moral and social problems" will be of interest to those who are concerned with such practical issues as actively concerned with and equality in education, whilst the third course "Philosophy and the Arts" will be of interest to those who take knowledge of art and is based on a evening class of two hours per week.

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Fr. D. J. Shaw, £11,000 from the Brit:

Noticeboard is compiled by Patricia Santinelli and Milla Goldie

Recent publications

The Young Student in School, College and Work, the second edition of a bibliography compiled by E. Ducke, B. Hill and C. Riches, is intended to provide an up to date guide for teachers, lecturers, managers and industrialists who need to know where to get information on 16 to 19-year-olds. It covers tertiary education as well as the world of work and sports such as 17-plus, the work of the FEU, Technical and Business Education Councils and the Youth Training Scheme (published by Heriots Publications, The Library, PO Box 110, Hatfield, Herts, SG9 9JF).

Staffing and Funding are the first two reports in a series "Voluntary action and young people in industry" published by the National Council for Voluntary Organizations which are designed to provide practical help for organizations setting up or running projects in this area. In starting up, Judith Ingham has looked at the experience of seven voluntary projects, including one working with young black people. Funding provides a guide to sources of money for work with young people in industry. It covers local and central government, charitable trusts and special sources of money such as the National Social Inheritance Treatment Fund. (Both are £1 and are available from Philip Hugg, NCVO, 26 Bedford Square, London WC1).

Youth and Policy, the journal of critical analysis is devoted to - the serious and critical analysis of youth in youth affairs and relevant issues surrounding the question of youth in society. It is published quarterly and contains papers and articles by acknowledged specialists and practitioners from a wide field of interest and involvement with modern youth. These include theoretical analysis, youth affairs, social and community work, aspects of social policy, legislation, inquiries and reports affecting young people, youth and ethnic groupings, police and social work, aspects of school and employment, intermediate treatment, and youth social work. *Youth and Policy* is available as an annual subscription of £6.00 from Youth and Policy, 16 Nelson Street, Nr. Ryton, Tyne & Wear, NE30 4AH.

The number of degree courses in building offered by universities and polytechnics in the UK has increased by four in the past year, according to a booklet published by Building magazine last week. There are now places for 717 students this autumn at 21 centres. The 32-page booklet *Degree Courses in Building* has details of all the courses and also provides a directory of consultants and architects. (Available from Building Centres, 1-3 Pemberton Road, Red Lion Court, Fleet St London EC4).

Wozu Albert is a fantasy about what would happen if the Saviour's Second Coming took place in South Africa. It is also a searing indictment of the apartheid system and a very entertaining play. It was devised by actors Percy Mtwa and Mbongeni Ngema (above), and director Barney Simon for The Market Theatre, Johannesburg. London audiences can see it at the Riverside Studios in Hammersmith until October 17 at 8pm except on Mondays.



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Manchester Government, Professor Gerald Parry and Dr George Meyer, £25,000 from the SERC for a study in political participation. The project will concentrate on two trouble spots, Moss Side and Toxteth, and two central areas, areas such as Salford and Hale for comparison.

Open University programmes October 2 to October 8 1982

Day	Programme	Code
Saturday October 2	23.40 Telecommunication Systems. Voice Switching and Intelligence (T21); prog 15	23.40
	24.00 Elements of Mod. Orbital Motion (A21); prog 15	24.00
	00.20 English Urban History 1500-1780. British Urban Perspectives (A32); prog 15	00.20
	00.20 Contemporary Issues in Education. A Second Course (E20); prog 16	00.20
	00.20 Contemporary Issues in Public Health. A Second Course (E20); prog 16	00.20
	00.20 Philosophical Problems. Have a Heart. Use Your Heart (A20); prog 16	00.20
	00.20 Modern Art from 1848 to the present: Stylistic and Social Implications. Artistic Films (A51); prog 16	00.20
	00.20 Marxist Religion. The Wages of Apathy (A50); prog 16	00.20
	00.20 Marxist Religion in a Hindu Village (A50); prog 16	00.20
	00.20 Greece 178-336 BC. Games and Festivals (A20); prog 16	00.20
Sunday October 3	00.20 An Introduction to Calculus. Differentiating (A10); prog 16	00.20
	00.20 The Development of Pure Mathematics. Econometrics (A10); prog 16	00.20
	00.20 The Development of Instruments and the Music 'Checker' (A30); prog 16	00.20
	00.20 The Technology Foundation Course. Cars (T10); prog 17	00.20
	00.20 The Technology Foundation Course. Land and Nature (A10); prog 17	00.20
	00.20 Education and the Urban Environment. Etching - meaning the Brnoches (E30); prog 17	00.20
	00.20 Conflict in the Family. A Good Neighbour (S20); prog 17	00.20
	00.20 Service (F21); prog 17	00.20
	00.20 The Environment and Society. Selling (E20); prog 17	00.20
	00.20 Organic Chemistry. Organics by the Ton (E30); prog 17	00.20
Monday October 4	00.20 The Algebraic Age. Herod and Judea (A20); prog 17	00.20
	00.20 Models and Methods. Waves (A20); prog 17	00.20
	00.20 Modern Engineering (A20); prog 17	00.20
	00.20 National Income and Economic Policy. The Money Market (E20); prog 17	00.20
	00.20 The Environment and Society. Can You Grow in a Conurbation (E20); prog 17	00.20
	00.20 The Environment and Society. Atmos (E20); prog 17	00.20
	00.20 The Environment and Society. Classroom Interaction (E20); prog 17	00.20
	00.20 The Environment and Society. Administering the Meaning (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20
Tuesday October 5	00.20 The Environment and Society. Administering (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20
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	00.20 The Environment and Society. Administering (E20); prog 17	00.20
Wednesday October 6	00.20 The Environment and Society. Administering (E20); prog 17	00.20
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	00.20 The Environment and Society. Administering (E20); prog 17	00.20
Thursday October 7	00.20 The Environment and Society. Administering (E20); prog 17	00.20
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	00.20 The Environment and Society. Administering (E20); prog 17	00.20
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	00.20 The Environment and Society. Administering (E20); prog 17	00.20
Friday October 8	00.20 The Environment and Society. Administering (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20
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	00.20 The Environment and Society. Administering (E20); prog 17	00.20
	00.20 The Environment and Society. Administering (E20); prog 17	00.20

Biochemical Aspects of Evolutionary Biology

MATTHEW H. NITECKI, editor

Contents
Historical versus equilibrium approaches to evolutionary data. Thomas J. M. Schopf. Chemistry & evolution: kingdoms and phyla. Lynn Margulis. Chemical diversification and evolution of plants as inferred from paleobiological studies. Karl J. Niklas. Carbon isotopes and the evolution of C₃ photosynthesis and relation to pollination mechanisms and phylogeny. Herbert G. Baker & Irene Baker. Chemical permeation in salamander courtship. Steven J. Arnold & Lynne Hovick. Systematics and population structure in man. Henry C. Harpending & Richard Ward. Of clocks and clades, or a story of old told by genes of now. Francisco Ayala. July 1982, £9.95.

Hierarchy

Perspectives for Ecological Complexity

T. F. H. ALLEN and THOMAS B. STARR
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Appointments

Universities
Fellowships
Research and
Studentships
Polytechnics
Colleges of
Higher Education
Colleges with
Teacher Education
Colleges and
Institutes of Technology

Technical Colleges
Colleges of
Further Education
Colleges and
Departments of Art
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Exhibitions
Awards
Conferences and Seminars
Courses

Personal
For Sale and Wanted
Holidays and
Accommodation

Universities



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The University of Sydney
LECTURER IN AERONAUTICAL ENGINEERING
The position is expected to be filled by a professional appointment of three years, capable of leading to tenure but, if all the University's requirements for tenure are not met, the appointment will be for a fixed term. The right to re-appoint for financial or other reasons.

FIXED-TERM LECTURER
The position is in the area of Clinical Psychology, with specialisation in child behaviour and development. Usual academic writing is required, plus training and experience in Clinic of Psychology. Duties are primarily with the postgraduate professional training Master of Psychology program, but there is scope to contribute to the general academic program.

The Flinders University of South Australia
RESEARCH FELLOW
The Fellow will be in the joint post of a research fellow in the Department of Mathematics. The Fellow will be expected to contribute to the work of the Department in the field of research in the area of mathematical physics.

Persons with a Ph.D. will normally be appointed on the third year of the salary scale, i.e. \$A19,125 per year. A contract will be made for a three-year period and renewal will be subject to the terms and conditions of the relevant award. Applications, including full personal details, should be sent to the Registrar, University of South Australia, Bedford Park, S.A. 5042. Applications should reach the Registrar by 15 October 1982, to be considered for the closing date, 15 November 1982.

Macquarie University, Sydney
CHAIR OF ANTHROPOLOGY
School of the Behavioural Sciences
Applications are invited for appointment to the Chair (emeritus) held by the late Professor Charles Rowell. The Chair is concerned with the development of research and teaching in the field of anthropology, particularly in the areas of human evolution, prehistoric anthropology and the anthropology of art and religion. Preference is given to an applicant whose research interests will serve to maintain and promote existing areas of concentration in the School.

UNIVERSITY OF STRATHCLYDE
RESEARCH ASSISTANT IN THE DEPARTMENT OF METALLURGY
Applications are invited for two posts on the Micro-structure and Mechanical Properties of Welded High Alloy Creep Resisting Steels. Experience in electron microscopy/analysis and physical metallurgy would be an advantage. The successful applicant will probably already hold a PhD degree.

UNIVERSITY OF STRATHCLYDE
LECTURER IN LAW
Applications are invited from persons with a law degree and a minimum of three years' professional experience in law. The successful applicant will be expected to contribute to the work of the Department in the field of research in the area of legal education.

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CHAIR IN THE AREA OF MECHANICAL/MANUFACTURING ENGINEERING
Applications are invited for this vacant Chair, candidates for which should have an established reputation in one of the following broad fields:
Control applied to mechanical equipment or manufacturing processes or systems.
Design including CAD.
Manufacture including CAM.
The eventual title of the Chair will be determined by the field of interest of the successful candidate. Further particulars may be obtained from The Registrar and Secretary, University of Bradford, Bradford, West Yorkshire, WF6 1PT. The closing date for receipt of applications is 20 October, 1982.



CHAIR IN MODERN LANGUAGES
Applications are invited for the above post, becoming vacant on 30 September, 1982 in the Department of Languages at Wilks. Applicants should be specialists in the area of:
French Studies
Applied Language Studies, with reference to two of French, German, Russian and Spanish
Modern Languages in a large and flourishing area of the University and is marked out for continued development. Further particulars, including conditions of service and salary details, may be obtained from The Registrar and Secretary, University of Bradford, Bradford, West Yorkshire, WF6 1PT. Closing date for receipt of applications is 20 October, 1982.

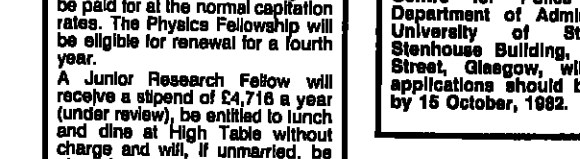
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JUNIOR RESEARCH FELLOWSHIPS
The College proposes, if there should be suitable candidates, to elect one Junior Research Fellowship in Physics and two Junior Research Fellowships in any other academic subject from 1 October, 1983. The College will not normally consider candidates who are at the date of election will be over 28 or who will not then have completed a first degree. The Fellowships are open to men and women and will be tenable for three years.

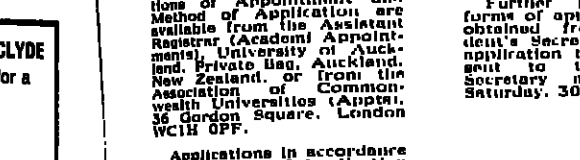


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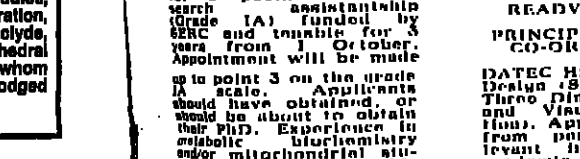
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RESEARCH ASSISTANT
In the DEPARTMENT OF ADMINISTRATION to work on managerial practice and problems in the Police service. Candidates should possess a postgraduate research qualification. The appointment is financed by SERC and is for a period of 18 months commencing on 1 January, 1983. Appointment on salary Range IA of the national salary structure for research and analogous activities, commencing salary up to £7,555 per annum according to age, qualifications and experience, USS benefit.



SYSTEMS AND PROGRAMMING MANAGER
The Computer Centre provides a service to all departments of the University based on a multi-user interactive system and an ICL system. There is also considerable experience in the use of microcomputers. The ICL system will be replaced in 1983 by a large scale general purpose computing system. Applications are now invited for the post of Systems and Programming Manager from graduates with extensive experience of the development and use of software in a wide range of systems and languages, as well as providing leadership and co-ordination in such projects. Starting salary will be lower half of the scale £12,920-£16,190. Further particulars are available from Mrs P. Johnson, Establishment Officer, 82/83 Clarendon Road, London W1A 2EX. Closing date 18 October 1982.

UNIVERSITY OF STRATHCLYDE
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Universities continued

NEW ZEALAND
THE UNIVERSITY OF AUCKLAND
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OXFORD
ST. JOHN'S COLLEGE
NORTH BRITAIN SCHOLARSHIPS
The College proposes, if there should be suitable candidates, to elect one Junior Research Fellowship in Physics and two Junior Research Fellowships in any other academic subject from 1 October, 1983. The College will not normally consider candidates who are at the date of election will be over 28 or who will not then have completed a first degree. The Fellowships are open to men and women and will be tenable for three years.

LONDON
KING'S COLLEGE
DEPARTMENT OF BIOCHEMISTRY
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The Polytechnic of Central London

School of Social Sciences & Business Studies
LII/SL IN ACCOUNTING AND FINANCE
Applications are invited from graduates and/or professionally qualified candidates who will be able to teach financial and management accounting to degree, professional and diploma students. An interest in data processing applications to accountancy, taxation or auditing would be an advantage as would the ability to develop self-financing short courses. Industrial, commercial or teaching experience is desirable. Salary scales: LII £7,689 - £11,856. SL £11,007 - £12,798 (BAR) - £13,850 inclusive of London Allowance. Application form and further details available from Establishment Office, PCL, 309 Regent Street, London W1R 9AL. Tel: 01-580 2020, Ext. 212. Closing Date: 14th October, 1982. (Re-advertisement)

LONDON
THAMES POLYTECHNIC
SCHOOL OF MECHANICAL ENGINEERING
Senior Lecturer in Manufacturing Engineering
Candidates should have a good degree in mechanical engineering with relevant industrial research experience. The successful candidate will be expected to contribute to the work of the Department in the field of research in the area of manufacturing engineering.

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Fellowships

The Leverhulme Trust
RESEARCH AWARDS ADVISORY COMMITTEE
INDIVIDUAL AWARDS FOR 1983
RESEARCH FELLOWSHIPS AND GRANTS
Awards of up to £4,000 to senior persons pursuing their own investigations (not for higher degrees or equivalent). Awards tenable for 3 months to 2 years. No subject of enquiry excluded. Applicants must have been educated in the U.K. or other part of the Commonwealth and be normally resident in the U.K. Application form F2C. Closing date Tuesday, 10th November, 1982.

EMERITUS FELLOWSHIPS
Awards of up to £3,000 a year for 1 or 2 years to persons who have recently reached or are about to reach retirement age to enable them to complete research. Persons with an established record of research who have retired early may also be considered. Applicants must have held academic positions in universities or other institutions of similar status in the U.K. Application form F6C. Closing date Wednesday, 1st December, 1982.

MANCHESTER
THE UNIVERSITY OF
SENIOR FELLOWSHIPS
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Colleges of Art

LONDON
KING'S COLLEGE
DEPARTMENT OF BIOCHEMISTRY
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Colleges of Further Education

RICHMOND-UPON-THAMES COLLEGE

CHIEF ADMINISTRATIVE OFFICER

£10,806-£12,048, Inclusive of London Weighting (Grade PD1 (3)). Pay award pending

The postholder will be responsible for the range of administrative support services in the Group 7 Tertiary College.

Applicants should be suitably qualified and have relevant administrative experience. Job description and application form from the Director of Education, Royal House, London Road, Twickenham, Middlesex, TW1 3QB, (01-891 1433 ext. 283) returnable by 19 October 1982.

London Borough of RICHMOND UPON THAMES

HEREFORD & WORCESTER COUNTY COUNCIL KIDDERMINSTER COLLEGE

In conjunction with THE POLYTECHNIC, WOLVERHAMPTON

DEPARTMENT OF CARPET STUDIES, ART & DESIGN

Principal Lecturer and Potential Course Leader in the BA(Hons) Course in the Design of Carpets and Related Textiles, operated in conjunction with the Polytechnic, Wolverhampton.

Applicants should be suitably qualified and experienced in an appropriate area of Textile Design, preferably with relevant administrative and teaching experience.

Salary Scale: £11,831-£15,018 (tar of £3,180). Further details and form of application from The Principal, Royal House, Kidderminster, B79 1LX. Telephone: Kidderminster 66311. 17

Colleges of Higher Education

College of St. Mark & St. John

MODERN EUROPEAN HISTORY PART-TIME LECTURESHIP

(Re-advertisement) Applications are invited from suitably qualified persons for a part-time lectureship in modern history, starting as soon as possible.

The successful applicant will participate in teaching modern history on the College's B.A. Humanities and B.Ed. honours programme (about 10 hours per week).

Candidates should have research experience and preferably post-graduate qualifications in some field of late nineteenth or twentieth century European history. Curriculum vitae and letter of application, including the names and addresses of two referees, should be sent as soon as possible to: The Principal, College of St. Mark and St. John, Darentford Road, Plymouth PL6 8BB.

Administration

SAINT DAVID'S UNIVERSITY COLLEGE LAMPETER TEMPORARY CAREERS ADVISER

Applications are invited from graduates for the temporary post of Careers Adviser for one year. The postholder will be responsible for providing vocational advice in Lampeter and for the careers advice service in the college. The successful applicant will be expected to work in conjunction with the careers service in the college and to provide a careers service to the college's students. The successful applicant will also be expected to provide a careers service to the college's staff. The successful applicant will also be expected to provide a careers service to the college's students. The successful applicant will also be expected to provide a careers service to the college's staff.

Colleges of Higher Education continued

ABERDEEN COLLEGE OF EDUCATION

PRINCIPAL

Applications are invited for the post of Principal of Aberdeen College of Education.

Salary £20,097 per annum.

The successful applicant will be expected to assume duty by 1st September, 1983.

Further information and forms of application for the post may be obtained from:

The College Secretary, Aberdeen College of Education, Hilton Place, Aberdeen AB9 1FA

to whom completed applications should be returned not later than Friday, 22nd October 1982.

JAMES SCOTLAND Principal

Colleges of Higher Education

HAMPSHIRE COUNTY COUNCIL

Southampton College of Higher Education

LII/Senior Lecturer in Public Administration

Applications are invited for the above post, which is available from 1 January, 1983.

Applicants should be well qualified, preferably with a good Honours degree and relevant teaching/research experience. The successful candidate will be expected to teach Public Administration, Social Policy and related subjects to final professional level. Experience of SEC Higher National courses (Public Sector Studies) would be an advantage.

Salary scale: £6,855-£12,816. Application forms and further details from the Finance and Staffing Officer, Southampton College of Higher Education, East Park Terrace, Southampton, SO9 4WV. Tel: Southampton 29381, Ext. 026. Closing date: 20 October, 1983.

Overseas

UNIVERSITY OF NATAL DEPARTMENT OF ACCOUNTANCY DURBAN, SOUTH AFRICA

Applications are invited from suitably qualified persons regardless of sex, religion, race, colour or national origin for appointment to the post of

PROFESSOR

The professorial post is a permanent post but the Head of Department is appointed for a period of five years immediately after the selection of the incumbent to fill this post, the Head of Department will be chosen from among the eligible candidates.

Salary in the range: R28 109 - 30 255 per annum.

A subvention is payable by the Public Accountants' and Auditors' Board in its discretion to Chartered Accountants (S.A.) who are engaged full-time as Professors in the teaching of Accountancy Studies at South African Universities.

The commencing salary notch will be dependent on the qualifications and/or experience of the successful applicant. In addition, a service bonus of 83% of one month's salary is payable annually subject to Treasury regulations.

Application forms, further particulars of the post and information on pension, medical aid, group insurance, staff bursary, housing loan and subsidy schemes, long leave conditions and travelling expenses on first appointment are obtainable from The Secretary, South African Universities Office, One Peter House, 278 High Holborn, London WC1V 7HE or the Registrar, University of Natal, King George V Avenue, Durban 4001, South Africa, with whom applications, on the prescribed form, must be lodged not later than 8th November, 1982 quoting the reference number 091/82.

THE UNIVERSITY OF MISSOURI ST. LOUIS seeks applicants for

ASSISTANT, ASSOCIATE or FULL PROFESSOR of Management Information Systems.

Ph.D. required.

Contact: David Bird, School of Business Administration, 8001 Natural Bridge, St. Louis, MO 63121, U.S.A.

CANADA

Memorial University of Newfoundland Library is seeking applicants for the position of Collections Manager (Library Services). This position entails the book and journal selection, acquisition, evaluation, and liaison between the library and successful applicants will possess a graduate degree in library science, or a related area of equivalent experience and a definite asset.

Memorial is a University of 10,000 students with a total library of ca. 800,000 vols. The staff consists of 10 librarians and ca. 150 support staff. We offer standard North American academic fringe benefits including access to sabbaticals and study leave.

The appointment can be made at either a senior or junior level, with salary dependent on qualifications and experience. For written applications should be sent to: Richard H. Gosselin, Director of Human Resources, Memorial University, St. John's, Newfoundland, A1B 3X9.

In accordance with Canadian immigration regulations, the successful applicant must be a citizen and permanent resident.

NATIONAL UNIVERSITY OF SINGAPORE Department of English Language & Literature

LANGUAGE

The Department expects to make up to eight appointments over the next twelve months in the field of English Linguistics. The new appointments will complement the present establishment of twenty-two engaged in full undergraduate and postgraduate programmes in the English Language. Applicants with an appropriate PhD degree or equivalent would have an advantage.

Although the Department is interested in applicants whose specializations and experience cover a wide area, there are certain fields of study where some strengthening is required. These are:

- Psycholinguistics
Text Linguistics and Language Variety
Language in Education
Computational Linguistics
Lexicology
Language Survey Design and Techniques
Sociolinguistics
English and other Languages (particularly Mandarin and Malay)

Applicants with further interests in the development of language teaching materials would have an advantage.

LITERATURE

Applicants should possess a PhD degree and be qualified to lecture/tutor in the main areas of English Literature from Chaucer onwards. Those with teaching/research experience in one or more of the following fields will have an advantage:

- 18th Century poetry
The Romantics
Victorian Literature
Sociology of Literature

Gross annual emoluments range as follows: Lecturer \$826,650-\$956,250; Senior Lecturer \$850,050-\$976,650; Associate Professor \$888,900-\$1,014,900; Professor \$918,150-\$1,044,450. (Stg £1 = S\$3.72 approximately)

The commencing salary will depend on the candidate's qualifications, experience and the level of appointment offered. Leave and medical benefits are provided. Under the University's Academic Staff Provident Fund (ASPF) Scheme, the staff member contributes at the present rate of 23% of the monthly gross salary subject to a maximum of S\$850, and the University contributes 22%. The total sum standing to the staff member's credit in the Fund may be withdrawn when the member leaves Singapore/Malaysia permanently.

Other benefits include: a settling-in allowance of S\$1,000 or S\$2,000, subsidized housing at rental ranging from S\$100 to S\$216 p.m., education allowance in respect of children's education subject to a maximum of S\$12,000 annually, passage assistance and baggage allowance for the transportation of personal effects to Singapore. Staff members may undertake consultancy work, subject to the approval of the University, and retain up to 60% of their annual gross salary in any one year.

Short-term appointments ranging from one to three years are available for staff of British universities, on a secondment basis. Under the secondment scheme, the appointee will return to his University at the end of the secondment period. The terms of secondment will generally include those described above, and will allow the appointee to opt to remain as a contributing member to the British Universities Superannuation Scheme (USS) or to contribute to the ASPF Scheme of the National University of Singapore.

Application forms and further details on terms and conditions of service may be obtained from:

Mr R. E. Sharma, Director of Personnel, National University of Singapore, Kent Ridge, Singapore 0511, United Kingdom. Tel: 01-235 4682

KING ABDULAZIZ UNIVERSITY JEDDAH, SAUDI ARABIA ENGLISH DEPARTMENT

Vacancies exist in the English Department of King Abdulaziz University on one year renewable contracts. Applicants should be M.Phil or D.Phil holders with teaching experience at university level.

Benefits include: generous negotiable tax free salaries; free furnished accommodation; fully paid home leave of not less than 60 days; children up to the age of 18 years; local transport allowance; terminal gratuity.

Applications (including address and telephone number) should be sent to: King Abdulaziz University, c/o Saudi Arabian Educational Office, 29 Belgrave Square, London SW1X 8BA. Interviews for interested applicants will be held in London during October 1982.

Overseas continued

English Language Centre University of Petroleum & Minerals Dhahran, Saudi Arabia

The University of Petroleum & Minerals, Dhahran, Saudi Arabia invites applications for TESL positions (native fluency) for the academic year 1983-84 starting 1 September 1983.

Qualifications: M.A. TESU Applied Linguistics or M.A. in TEFL or TESL or Post-graduate diploma in TEFL or TESL or Post-graduate certificate in Education (TESL/TEFL).

Experience: Minimum two years' teaching experience in TEFL/ESL overseas.

Description of Duties: Teaching English to post-secondary school students with elementary to intermediate proficiency at the University of Petroleum & Minerals.

Minimum regular contract for two years, renewable. Competitive salaries and allowances. Air conditioned and furnished housing provided. Free air transportation to and from Dhahran each year. Attractive educational assistance grants for school age dependent children. All earned income without Saudi taxes. Ten months duty each year with two months vacation with salary. There is also possibility of selection for the University's ongoing summer program with good additional compensation.

Apply with complete resume of academic and professional background, list of references and with certified/official copies of transcripts and degrees, including personal data, such as home and office addresses, telephone numbers and family status to: Dean of Faculty & Personnel Affairs, University of Petroleum & Minerals, P.O. Box 144, Dhahran International Airport, Dhahran, Saudi Arabia.



USA TEACH ON EXCHANGE IN USA

Qualified British teachers/lecturers of all subjects with 3 years teaching experience currently seeking overseas assignments are invited to apply for post to the USA during the academic year 1983/84.

Teachers/lecturers are appointed on full UK salary with incremental pension and social security contributions. Travel expenses and a cost of living allowance are payable.

Further details and application forms from: The Central Bureau, Seymour House, 15, Bedford Way, Cambridge CB2 3RQ.

Closing date for completed applications: 15 November 1982.

Administration Continued

NEWCASTLE POLYTECHNIC STUDENTS' UNION REQUIRE A WELFARE OFFICER

Applications are invited for the above post. The successful candidate will be responsible for the welfare of the students of the Newcastle Polytechnic. The successful candidate will be expected to make a significant contribution to the general work of the School. Special consideration will be given to applicants with a whole or part of their initial degree and who are able to teach ecology to degree level.

Application forms and further details can be obtained from, and should be returned within 14 days of date of advertisement to: The College Secretary, Gwent College of Higher Education, Caeleion, Newport, Gwent NP23 1XJ.

General Vacancies

BRIMINGHAM

Wanted experienced A level Biology tutor for 10 hours per week. Must be able to motivate students. Interview by appointment. Tel: 0522 511111.

REMINDER COPY FOR CLASSIFIED ADVERTISEMENTS IN THE T.H.E.S.

SHOULD ARRIVE NOT LATER THAN 10.00 AM ON THE PRECEDING DAY OF PUBLICATION

Colleges of Higher Education continued

GWENT COLLEGE OF HIGHER EDUCATION LECTURER II/SENIOR LECTURER APPOINTMENTS

Salary: £6,855-£12,816 (subject to work bars)

1. DESIGN STUDIES A Lecturer in Product Design Studies is required for the School of Three Dimensional Studies to be responsible for introducing Industrial and Product Design to students following the Developing BA (Hons) Degree in Design, Craft and Technology, and the established BEd, BEd (Hons) degrees.

Applicants should have had at least five years experience as practising Industrial Designers, either in a staff or consultant capacity, within the Engineering and/or Plastics Industries. A teaching qualification would be an advantage but is not essential for this post. (Previous applicants need not apply).

2. SCHOOL OF SOCIAL AND ENVIRONMENTAL STUDIES Applications are invited for a post of Lecturer/Senior Lecturer in the School of Social and Environmental Studies. The School has a national and international reputation in the teaching of environmental studies.

and offers courses at Diploma, BEd, BA and MEd levels for home and overseas students. These courses are also offered on a part-time basis and the School has a considerable in-service commitment. The successful candidate will be expected to make a significant contribution to the general work of the School. Special consideration will be given to applicants with a whole or part of their initial degree and who are able to teach ecology to degree level.

Application forms and further details can be obtained from, and should be returned within 14 days of date of advertisement to: The College Secretary, Gwent College of Higher Education, Caeleion, Newport, Gwent NP23 1XJ.

Classified Advertisements

To advertise in the THES please phone Jane McFarlane on 01-253 3000, Ext. 233

THE TIMES HIGHER EDUCATION SUPPLEMENT PRIORY HOUSE ST. JOHNS LANE, LONDON EC1M 4BX.

THE TIMES Higher Education SUPPLEMENT

SPECIAL BOOK NUMBERS 1982

Table with 3 columns: Month, Day, Title. Oct 8 University Presses; Oct 15 English; Oct 22 Sociology; Oct 29 Maths and Physics.

Table with 3 columns: Month, Day, Title. Nov 5 History; Nov 12 Psychology; Nov 19 Politics; Nov 26 Computers Science.

SPECIAL FEATURES 1982

Table with 3 columns: Month, Day, Title. Oct 8 Academic Journals.

SPECIAL BOOK NUMBERS SPRING/SUMMER 1983

Table with 3 columns: Month, Day, Title. Feb 4 English; Feb 11 Education; Feb 18 Biological Sciences; Feb 25 Economics.

Table with 3 columns: Month, Day, Title. March 4 European Studies; March 11 Sociology; March 18 Maths and Physics; March 25 History.

Table with 3 columns: Month, Day, Title. April 1 London Book Fair; April 8 Psychology; April 15 Engineering; April 22 Philosophy; April 29 Chemistry.

Table with 3 columns: Month, Day, Title. May 6 Law; May 13 American Studies; May 20 Environmental Studies; May 27 Social Administration.

SPECIAL FEATURES SPRING/SUMMER 1983

Table with 3 columns: Month, Day, Title. Jan 21 Business and Technical Education; Jan 28 Microfilm Publishing.

Table with 3 columns: Month, Day, Title. Mar 25 Management Education; June 10 Reviews of New Journals in the Humanities and Social Sciences; June 17 Computers in Higher Education.

Table with 3 columns: Month, Day, Title. July 1 Education for Employment.

Don's diary

Saturday

Everyone has heard of Baden-Baden; it was somewhere in Germany in the nineteenth century. Surprisingly, it still exists in full glory. To get there, head due east from the Channel ports and stop a few days en route in the Vosges. There for £10 a day demi-pension you can enjoy life in a Logis de France (copy to British Tourist Board) without fear of running into other foreigners. Baden-Baden is just across the Rhine and turn left. Spent the afternoon in the Karlsruhe gardens listening to the Promenade Concert and watching the smart set stroll by. It's a fashion parade for the over fifties and our travelling clothes are not up to scratch. The early evening is taken up with a tour of the town studying menus. By luck we spot a back street sausage and sauerkraut specialist which provides the best of starts to this German week.

Sunday

Wake up bright and early and ready for a *Bad*. Our hotel is just opposite the Friedrichsbad, built in New Renaissance style in the 1870s. It is famed for its Roman-Irish programme: two cleansing hours which "purifies the body and activates the metabolism". Should one have it before or after breakfast? Dismal to learn that the baths are closed on Sundays. Take another turn around the town for some serious window shopping. I cannot recall another place with such a high concentration of shops that I would not dare to enter. The price tags on clothing and jewellery in particular seem to be 10 times greater than expected. The really classy shops, of course, have no price tags; they presumably follow the principle that if you have to ask the price you cannot afford it. Head north up the notorious Basel-Frankfurt autobahn and drop wife and daughter at Frankfurt airport (that's the place Kafka would write about if he were still around). Son and I head on up the autobahn to Göttingen. Son billeted out with German academic friends but he has a nasty shock. German schools have started already so he will sit in classes for a few days while I attend my conference.

Monday

As first speaker at the seventh international conference on gas kinetics I am very happy to get my job done and enjoy the rest of the week. It all starts very formal and polite with greetings in three languages from our German host. A record attendance of 300 for this particular series and the largest group (70) are the Brits. Some conspicuous absentees (Russians, Poles), but some Chinese and Australians managed to come. Göttingen is, of course, the Mecca of my subject, quantum mechanics, and of a few other subjects besides. The town exudes the spirit of academia with a university of 25,000 students and numerous research establishments. It feels much more dominated by Gown than Oxford or Cambridge. A lively day ends with the mayor's reception at the Altes Rathaus. He gives an interesting resume of the town's history (in English, of course) to the accompanying sound of drawing curbs. The conference is now really on the road.

Tuesday

My hotel has an indoor swimming pool, comfortably warm, so there is no excuse for not having a pre-breakfast swim. The Germans do start work early, at 6.30am the streets are bustling. By 7.30am I am refreshed, exercised and ready for breakfast. It is a splendid buffet from which I select juice, cereal, egg, cheese, cold meats, honey and a jug

of coffee; this is a disgrace, but not out of line with my tellow breakfasters. Strid through the centre of town, a useful pedestrian precinct, to the conference centre; pleased that I still make the 9am start. Actually, I never have difficulty with morning sessions but long hot afternoons are more testing for my conscience. However, it soon became respectable to miss a few talks and pursue science around the coffee bar. The day finishes with a splendid piano recital by a young pianist. This reminds me that it is probably even more difficult to get on to the musical ladder than the academic ladder.

Wednesday

Some as Tuesday until lunch time then an afternoon trip to the Harz mountains. We can choose five programmes ranging from "tough two-hour hike" to "long drive and tea". I ignore them all and head for the hills with son and fishing rod. I have some quans because the DDR border is close by, but surely even in mountains it would be well marked. Give it a 20-mile clear berth just to be safe. Finally track down a lake that looks fishable and has no obvious "keep out/private" signs. Discover the British army at camp, not defending our freedom but fishing too. Back to Göttingen for the conference banquet which is a cold buffet of magnificent proportions.

Thursday

I get the feeling that this conference is a bit too polite. There was a brief morning flurry of controversy which even led some to miss the coffee break. It rather fizzled out as both sides accepted compromises. I suppose that this area of the physical sciences is presently rather stable and whilst there is a lot of sweat there are few surprises. Perhaps the conference is too well organized, for there is nothing like a bit of chaos to make people tecky. I squeeze in a bit of shopping before the return trip. I expected to find some excellent wine at what to us are bargain prices but I did not expect English-made tennis balls at half their English price. Back to the conference hall for an evening poster session. Some of the presentations that did not make the formal sessions have some lively groups in attendance. The freely flowing wine helps, of course.

Friday

We make an early start on the long drive back to England but as I do not intend to become an autobahn accident statistic I plan a relatively gentle drive with an overnight stop in northern France. I am a 65mph-in-the-inner-lane person and most cars whip past into the far distance. We stop at Aachen to use our last Deutschemark on lunch and a full petrol tank and dash across Belgium with no local currency. Have never tested my theory that services on continental motorways should, like airlines, be sufficiently international to take any type of currency. We find ourselves crossing the French border in middle afternoon much earlier than expected and decide to make for Calais and home a day early. The autobahn/autoroute finally peters out 20 miles from our destination but we comfortably make an early evening crossing. It's a bit of a strid and in the trip with crowded bars and buffets and most passengers more concerned to get their fall allowance of duty-free than to enjoy the sea and air. I become very unsecurable in such surroundings.

J. N. Murrell

The author is dean of the school of chemistry and molecular sciences at the University of Sussex.

The value of a mixed system

America's tightened budgets for higher education are likely to breach the peace which has held between the public and private colleges and universities for the past four or five years. The word "public", in American higher education, means that the institution receives direct government support and is run by a "public" board of members either appointed or elected. Private institutions generally receive no direct government aid, and their boards are both independent and self-perpetuating.

The ambiguity in the distinction "public/private" is that a deal of public money flows indirectly to private institutions, principally in two channels, research and student aid. Research monies come mainly from the federal government, and while student aid has, of recent years, also been principally federal, at least a dozen states have considerable programmes of their own. The aid a private college receives rides on the backs of its students; they choose to spend their aid money at a private rather than a public college or university.

Recession means that both state and federal dollars must stretch to meet steadily increasing demands. Under this pressure, the private sector is at greater risk. Apart from the enormous momentum of any state supported bureaucracy, public colleges and universities outnumber private ones by about 8 to 2. When dealing with legislatures, both state and federal, the political clout of the unionized faculties in public institutions can be massive, in several big states decisively so. The influence of teacher organizations has begun to rival that of the American Medical Association, or the National Rifle Association.

Most Americans feel that it is a good idea for us to keep our mixed system. And while private higher education on the eastern seaboard comes closer to one-half the total, in the western states, it would fall considerably below 20 per cent. There is thus no question that in any given region, the heart and centre of higher education will be its public institutions. In their own defence, private colleges can argue that they are useful for the balance of the whole national system, public as well as private.

The *Chronicle of Higher Education* and drink and oil away a few rusted-up misconceptions; it has spawned a hundredweight or so of both UK and US verbiage in which the Americans have displayed somewhat less chauvinistic myopia — as one might expect — than their British colleagues; and it has kept the higher education argument rolling along through *The Times* headlines. But it has failed to move perceptibly towards resolution of the fundamental nodes of the argument — the involvement of local democracy with higher education, the degree to which universities should mesh with the community around them and the ability of "higher education" to help the nation clamber out of its slough of despond. The issues have hardly progressed.

Why, then, does the Leverhulme agenda now appear so narrow and restricted? I suspect, because it was wrong in the first place. The ball game is suddenly different. The Robbins agenda of the 1960s was at least defensible in its time. The widening and democratisation of degree-level education beyond the narrow English Oxbridge tradition was a respectable objective. By the 1980s the foundations of that task have been laid — and suddenly the problem is different. The task of producing an expert elite, responsible for feeding and sustaining the nation's economic growth, is no longer its plausible role. Any new Robbins Committee would today set itself far wider horizons. If higher education institutions wish to be self-reliant, they should see themselves as partners with the people in the salvation of society, rather than as repositories of professional and academic expertise.

The excuses for traditionalism and inaction are obvious. Suddenly universities and polytechnics hardly have to advertise. The students come flocking. As the A level competition intensifies, why should the institutions worry? Why shouldn't they scoop up the talent and teach it traditional courses? The short answer is that there is



Timothy Healy

the major professional newspaper for American colleges and universities, recently headlined the new British Labour party plan: "Oxford and Cambridge seen as major centers in the educational system". There is relatively little of that feeling in American public consciousness. It would be fatuous to pretend that the United States has no class consciousness, but even anti-elitist rhetoric aimed at Harvard and Yale would have to include Berkeley and North Carolina. Neither Democrats nor Republicans would allow hot words like "cancer" to be used of top flight private or public shops.

Private colleges and universities make three principal contributions. First, they help protect public colleges from political manipulation, to which because of their public funding they can be and at times are desperately exposed. Private colleges take for granted that their boards of trustees serve without reference to any other constituency. Public boards can seldom do this. Publicly named board members must read their responsibility in terms of the needs, the perceptions, and at times the resentments of those individual sub-sets in the larger community from which they come, be they

ethnic, geographic, religious, or professional. The result can be paralytic and few public institutions have escaped this in matters academic, or salaries, costs, general administration, and budgets. Academic and administrative independence is thus easier to guarantee at private colleges than at the public ones. Public institutions need to point to the autonomy and self-determination of their private peers and claim a like privilege for themselves.

Another service private colleges offer is the stand they are free to take against growing public and legislative pressure for vocational, career, and work-oriented studies. The massed gradings of our time seem bent on forcing public colleges and universities to offer more career-oriented courses. The private colleges can defend the liberal system by proclaiming that a literate citizenry demands more than technocrats. They also know that we have just begun to open higher education to a fair proportion of previously excluded students, and now is not the time to change the map or the rules.

A further strength of private colleges and universities is that they can give free rein to differing spiritual visions of this republic. If a student is black or Spanish-speaking, his view of America will be different. There must be places where these differences can be freely explored. Religious differences are many in America and some of our private institutions have kept their religious traditions alive. Protestants, Catholics and Jews are likely to have quite different views of civic responsibility at least for some of the issues that divide democracy. To speak from my own Roman Catholic tradition, Latin America presents one such issue. Drawing attention to the importance of Latin America, building awareness of the desperate inequities and stulticities of American dealings there, and acknowledging our ultimate dependence upon some reasonable and peaceful understanding with that continent all may be major Catholic contributions to the life and work of our colleges and universities.

Both public and private colleges know that their differences are theirs by right and long building. If under budgetary pressures we turn our divisions against each other, we will fail the nation and may destroy ourselves.

no reason why they shouldn't. The universities are autonomous institutions — they can behave as they like. But screaming like mad when the Government cuts down their funds and then conforming exactly to the sort of competitive pattern the Government wishes therefor is a curious craven sort of autonomy. To retain autonomy you must use it. Otherwise it fades into desuetude. What then could the universities do to show they care about the world outside? They could take more students than their quota. Everyone would have to work harder, the UGC would cackle and worry and the DES would frown and threaten further cuts. But there is nothing to stop a university doing it; that no university has done so this year suggests either that they don't wish to or that they're frightened to.

Or they could take a particular quota of adults, or inner-city comprehensive students or blacks. They all know that A level results are heavily conditioned by privileged schooling, none better than those few Oxford colleges that do select a separate inner city intake. (When once I asked a coterie of dons whether the policy stemmed from guilt, they all replied that it was pure self-interest. They knew there was talent in those comprehensives and they wanted it at Oxford.) It would be nice if some other universities trumpeted the same message.

Or they could stop cold-shouldering the Open University's credit system and open the system to adults. Why bother? The A level candidates flow in. If there is any suggestion in Professor Williams's final report of a desire by the higher education lobby to serve it, rather than skin a layer of cream from the A level cake, I shall be happy and give three cheers for the margarine and detergent magnates whose trust fund made it all possible. But I didn't get many encouraging vibes at Warwick from the university and polyfolk; I suspect Gareth Williams may have to invent a few ideas of his own.

LETTERS TO THE EDITOR

Natffe and the CND

Sir, — As president of the National Association of Teachers in Further and Higher Education, I received prior to the union's conference last May a considerable number of letters about the proposed rule change which made affiliation to the Campaign for Nuclear Disarmament possible. Most of them claimed that the new rule had been inadequately discussed. Some said that it was contrary to the instrument of amalgamation. I examined this closely and decided that this was not the case. As ex-president I have continued to receive members' letters resigning and threatening to resign. The number of letters is not insignificant and it would have been irresponsible to ignore the concerns of these members. As a member of the CND I am not against that organization. My concern is that the association should pull together in these difficult times and that this if a large group of members is questioning the democratic decision-making process and objecting to participation in activities not regarded as being related to mainstream further education.

To describe the democratic activities of a group of members, who are deeply concerned to see that Natffe continues to represent all teachers in further and higher education, as "divisive and divisive" is indicative of a sad trend in political activity in this country and suggests political immaturity.

If the matter had been left until the next annual conference the media would have reported that as a major item, as they did at the last annual conference rather than focusing on debates on educational policy, educational cuts, salaries and conditions of employment. A special conference will provide the means for allowing all members to vote and indicate whether they wish to see the principle purposes of the Natffe varied and if they do whether they wish to see affiliation to the CND.

To question the priorities of this group, who have given thousands of voluntary hours to Natffe over a period of more than 20 years and have played major roles in the determination of policy, indicates scant regard for loyalty and service. I would hope that all branch secretaries irrespective of their views would give members the chance to sign the requisition notice if they wish and so give every current member of Natffe the chance to state whether she or he wishes to see the continuation of the change in the principle purposes of Natffe and affiliation to the CND.

Yours sincerely, MALCOLM LEE, Ex-President, Natffe.

Ulster quotation

Sir, — The vice-chancellor of the Queen's University of Belfast, Dr Peter Froggatt, has asked me to draw your attention to a small but important misuse of a quotation in your otherwise excellent leader "Bogged Down in Ulster" (*THES*, September 10). Dr Froggatt's use of the term "spoilt child" did not refer to the Ulster Polytechnic, for which he has a high regard. It was used in connection with the new merged university where, since this institution is to be a government creation against the advice of its own committee (the Chilver committee), Dr Froggatt was pointing out the danger of excessive favouritism.

The quotation was used correctly in *The Times* of September 3 in an item by Paul McGill.

Yours faithfully, IVAN D. STRAHAN, Information Officer, The Queen's University of Belfast.

Letters for publication should arrive by Tuesday morning. They should be as short as possible and written on one side of the paper. The editor reserves the right to cut or amend them if necessary.

The teaching of literary theory

Sir, — Margaret Coleman's article on the teaching of literary theory (*THES*, September 17) was an interesting contribution to the increasing concern with teaching critical strategies recently manifested in Oxford and elsewhere. We have been running such a course in Aberdeen since 1967 as an option for honours students. It has never failed to recruit, usually between 10 and 12 students, occasionally as many as 17 or 18 out of the 50 or 60 annual finalists. The fortnightly discussions are based on a 15-minute paper prepared by each participant, they never fail to run well into a second hour; they are always open and relaxed; and characteristically, though not invariably, they are stimulating, entertaining and relevant. Immensely rewarding to their organizers as they are a constant reminder of student attitudes to literature and criticism at all levels of ability and towards the end of their four-year course. What is of especial interest is that we can now record changes in attitudes over several years ago so that the introduction of a discussion on the concept of culture which had to be brought in after the campus riots at the beginning of the article is now of diminished importance compared with structuralism which are modifying approaches to historical materialism.

Since the topic is loose and baggy (though we are fortunate in this department in having a separate final paper on practical critical problems), the seminar has to be organized tightly. In contrast, it seems, to that run by Margaret Coleman, we insist on some knowledge of historical criticism (in this the candidate may be selective and in the mainstream) and there is some attention paid to the classical and major British critics

Academic point

Sir, — I am irritated by the growing use in your columns of the words "professional" or "profession" to qualify "academic". Even as a shorthand the usage is misleading and counter-productive. It clouds rather than clarifies the real nature of universities and tends to confirm their appearance to outsiders as elitist and separatist in attitude.

This is not to say that academics are not or should not be professional in their behaviour. They should behave however as professional philosophers, physicists, physicians, etc., and also as professional scholars, researchers and teachers. In each of these activities of practice and standards of competence, and share codes of practice and standards of competence. It is very rare for people in other occupations to be professional according to more than one professional code. The uniqueness of higher education establishments is that their shared administrative environment (noted by Peter Scott in your columns some weeks ago) provides a place for each individual to practice several of these professional roles simultaneously or interchangeably. Being an academic is not a profession in itself, merely an occupation.

No doubt some of the present weakness of the universities derives from the lack of relation with professional bodies, and in the key method-orientated activities of teaching, scholarship and research. The lack of any professional body to all. The attitudes of many academics do not help — for instance the Association of University Teachers has consistently resisted suggestions that it should become a trade union, less one aspect of the timidity in the face of the problems of defining professional codes and standards of competence, than from fear of having them applied.

In my mind, academics need to become professional and more profession-minded. They must for this look outwards to relate to professional practice in other occupations, not inwards to some philosophically indefensible position that merely being a university lecturer sets one apart from (above) the rest of humanity. Strength will come from being a specialized part of society but not from being a society apart: the ivory tower crumbled more than a quarter century ago.

Perhaps as a first step your column could be purged of the soleism "academic profession"? Yours faithfully, J. P. DICKINSON, 2 Hollin View, Far Hangingly, Leeds.

Yours faithfully, JOAN BUSFIELD, Chairperson, Standing committee of the equality of the sexes, for the British Sociological Association.

Union View

The positive way towards equality

A modest but significant event for the Association of University Teachers took place this week — the first ever national meeting of AUT members convened to discuss equal opportunities in the university context. The one-day workshop brought together AUT equal opportunity representatives from almost every university in the country.

The workshop focused on the problems encountered by women in universities but the AUT's working party on equal opportunities which organized it, hoped that the problems of other groups within universities for example, those of minority ethnic groups, would also be aired.

The four main topics for group discussion were chosen by the participants: selection policies for staff (and students) was easily the most popular followed by career development and training. AUT organization, and the Equal Opportunities Commission code of practice. Considerable interest was also expressed in discussing the problem of sexual harassment.

So why this and what do we hope will come out of it? On a fairly basic level the AUT's working party to listen to members' views on what their main preoccupations are in this field, and what issues they want to see the working party concentrate on in the coming year.

But I hope the workshop will achieve more than this. It is time for some realistic stock-taking, and a searching reassessment

Yours sincerely, JOAN H. PITTOCK WESSON, M. R. G. SPILLER, Department of English, University of Aberdeen.

of what avenues might offer a way forward. Recently an audit on the current position of women academic staff was undertaken by the EOC as the first stage of a proposed joint AUT/EOC investigation into how the situation might be improved. The statistical description tells us what we know already but in greater detail.

One in ten academics are women; of whom more than eight out of every ten are on the lecturer grade or below; and they earn on average 6 per cent less than men in the same grade. Four out of every ten part-time academic staff are women; for most of whom this is their only employment. In contrast the part-time academic activities of many men appears to be fitted in with other employment and has a different status. And so on.

Are we travelling backwards? Certainly this seems likely to happen for women students as a proportion of the undergraduate entry. Each year more young women apply for university but the subjects for which they have prepared are the very ones now singled out particularly for cut-backs — the arts and social sciences. Keeping their market share of student places at 40 per cent, let alone improving on it, will be a feat some what like running up the down escalator in the next few years.

What is the scope for positive action policies in the university context now? An introduction of positive action policies would have to take into account the stagnation in promotion prospects, and the generally deteriorating employment situation, not to mention traditional resistance, the mistaken equation of positive action with positive discrimination, and a host of other difficulties.

Still, it always has been easy, though ultimately unrewarding, to find excuses for not changing ways of doing things. Let us accentuate the positive for a change.

Tina Day

The author is assistant general secretary of the Association of University Teachers.

